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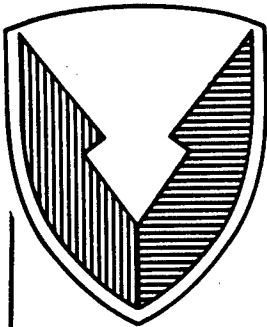ə227

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Technical Report

No. __13518__

FINAL REPORT FOR THE

SIMPLIFIED TEST EQUIPMENT - EXPANDED (STE-X)

CONTRACT NO. DAAE07-88-C-R133

SEPTEMBER 1990

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20031219037

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REPORT DOCUMENTATION PAGE

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED	
	Sep 90	Final	9/88 - 9/90

4. TITLE AND SUBTITLE

Final Report for the Simplified Test Equipment - Expandable (STE-X)

5. FUNDING NUMBERS

Contract No. DAAE07-88-C-R133

6. AUTHOR(S)

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7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

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8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

U.S. Army Tank-Automotive Command
Warren, MI 48397-5000

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

13518

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

This report documents:

o   Hardware and software changes made to the STE-X between the STE-X DT II and the HIP OT activities.

o   Results of the STE-X based HIP analyzer set OT.

o   STE-X application support given to MICOM and LTV for the STE-X based AN/TSM-193.

o   STE-X components common to the HIP analyzer set and the AN/TSM-193.

o   STE-X development support tools.

14. SUBJECT TERMS

STE-X, HIP Analyzer Set, AN/TSM-193, STE-X DT II, HIP OT, HIP Analyzer Set OT

15. NUMBER OF PAGES

112

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	SAR

PREFACE

This report has been generated in accordance with direction established at the 9 August 1990 meeting between the GE Program Management Office (D. Bartlett, T. Dwan and M. Fitzgerald) and the Contracting Officer's Technical Representative (W. Hnatczuk). The report format and scope were tailored as mutually agreed upon per paragraph C.4.7.1 of the contract.

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1.0 INTRODUCTION

The primary intent of this Final Report is to provide a bridge between the STE-X configuration (hardware and software) at the end of its DTII and the STE-X portion of the Howitzer Improvement Program (HIP) analyser set at the conclusion of its operational test (OT). In addition, contract close-out activity and final position are documented for purposes of completeness.

2.0 HARDWARE CHANGES BETWEEN STE-X DTII AND HIP OT

The major hardware changes in the STE-X test unit design from DTII (P/N 12315155) as described in the STE-X Full Scale Engineering Development (FSED) Final Technical Report No. 13398 to the HIP analyser set OT configuration (P/N 12361309), as a result of the Engineering Change Notices (ECNs) listed in Appendix A, are described below.

2.1 Mainframe (P/N changed from 12315156 to 12335934)

No major changes were made to the STE-X mainframe except for those described in the following sub-paragraph:

2.1.1 CPU PWA (P/N changed from 12315161 to 12335928)
The Random Access Memory (RAM) was increased from 256K to 512K bytes.

2.1.2 Three Bubble PWA (P/N changed from 12335734 to 12335925)
Changes made to this PWA included the addition of a "Z" coil for erasing the bubble memory along with artwork clean-up changes.

2.1.3 Power Module (P/N changed from 12335649 to 12361287)
Additional input power protection for voltage pulses of up to 70 volts for one second duration was added to this supply.

2.2 Memory Module (P/N changed from 12335743 to 12335973)

The major change to the memory module assembly involved the one bubble PWA change.

2.2.1 One Bubble PWA (P/N changed from 12335731 to 12335922)
The primary change to this PWA was the addition of a "Z" coil for erasing the contents of the bubble memory.

2.3 Interface Module (P/N changed from 12315177 to 12361290)

The major interface module changes involved the addition of 1553 and RS422 communication capability, the deletion of memory in the interface module, and the special functions PWA "ID" change.

2.3.1 1553/RS422 Communications PWA (P/N 12361293 - Addition)
This PWA was added to the interface module configuration during the HIP program.

2.3.2   **Three Bubble Memory PWA (P/N 12335734 - Deletion)**
         This PWA was deleted from the interface module configuration
         during the HIP program.

2.3.3   **Special Functions PWA (P/N changed from 12315185 to 12361342)**
         The part number change of this PWA was required as a result of the
         change to its "ID" via a resistor change.

3.0   **SOFTWARE CHANGES BETWEEN STE-X DTII AND HIP OT**

         The STE-X software as configured for Development Test (DT) was
         divided into six Computer Program Configuration Items (CPCI's):
         Operating System Software, Development Support Utilities Software,
         Selftest Software, M1 Applications Software, STE/ICE Applications
         Software, and M2 Applications software. For Operational Test (OT)
         two additional CPCI's were added; SETCOM Software was added to
         support the new SETCOM, and to accommodate the HIP configuration
         an additional CPCI, HIP Applications software, was added. Two
         CPCI's, M1 Applications and M2 Applications, were removed for OT
         on the HIP vehicle.

3.1   **12335631 STE-X Operating System CPCI**

         The STE-X Operating System CPCI, as released for DT, was broken
         down into two groups of four each Computer Program Components
         (CPC's). The first group, Core Executives CPC's, provide the
         functionality to access all STE-X hardware, the serial ports, the
         bubble memory, and the measurement/stimulus hardware. The Core
         Executive software is always loaded in PROM or RAM memory for
         other CPC or CPCI software to use. The Core Executive CPC's are
         the Bootstrap Loaded Operating System software, PROM resident
         Operating system, On-Board Slave software, and Analog Slave
         software. The second group of four Operating System CPC's are
         differentiated from the first in that they are loaded into RAM
         memory only at the time of their use. The second group is made up
         of the Software Transfer Utility software, Analog Debug software,
         DFL Interpreter software, and Cable Interpreter software.
         Additional CPC's were added to support HIP, HIP Operating System
         Extension software, and HIP DFL Interpreter Extensions. HIP
         Operating System Extension software provides the operating system
         software to support functionality added for HIP including 1553B bus
         drivers, RS422 serial port drivers and reprogramming capability
         STE-X to PDIU. HIP DFL Interpreter Extensions software provides
         routines to interpret nine new DFL Measurement words and interface
         with the new 1553B and RS422 hardware and HIP Operating System
         Extension software drivers.

3.1.1   **STE-X Core Executive CPC's:**

3.1.1.1 **12335946 Bootstrap Loaded Operating System CPC (Baselined to
         12336014 Core Operating System):**
         The Bootstrap Loaded Operating System executed on the main 8086
         CPU is loaded from bubble memory to RAM by the PROM Resident
         Operating System at powerup. The Bootstrap Loaded Operating

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System once loaded remains in RAM memory to be accessed by all other STE-X CPCI's and CPC's. The Bootstrap Loaded Operating System functions are: system initialization, LTL loaded operating system interface, test selection, file handler, 8086 program loader, measurements, exception handling, serial transfer, 8051 program loader, library functions and procedures, trace, cloning, and Pascal Run Time system interface.

System initialization software initializes the necessary file, queue, pointer and stack environment for the other functions of the Bootstrap Loaded Operating System to run. It initializes when control is transferred from the PROM Resident Operating System after power up or when a fatal error has occurred.

The Load Time Locating (LTL) Loaded Operating System Interface provides an interface for applications software to access the functions and procedures of the Bootstrap Loaded Operating System. This is accomplished by a table at fixed address in memory with pointers to the fixed addresses of accessible Bootstrap Loaded Operating System functions and procedures.

Test Selection provides the software to interface with the operator using Library Utilities to query the operator for test choice. Tests selected can be those loaded into RAM by the Bootstrap Loader at power up, or those requiring the Load Time Locating Loader to load them at run time. The File Handler Software provides functions and routines to be used by the non-PROM based program loaders and software transfer utilities to create and maintain the file system on STE-X. Functions and procedures include creating, opening, reading, writing, closing and deleting files, selecting a directory, and reporting information on a file, directory or volume.

The 8086 Program Loader loads non-Bootstrap loaded files 8086 executed files from bubble memory to RAM at run time. A new feature of the HIP Operating system allows multiple files to be linked and loaded at run time. Measurement software interfaces with and directs the Analog Slaves on the Final Mux Boards which actually make the measurements.

Exception Utility software provides for servicing raised exception and error flags and provides for the raising of error and exception flags.

The Serial Transfer Utility provide software to load individual files from a host Intel computer to STE-X mainframe bubble.

The STE-X 8051 Loader provides the software to load executable 8051 code from bubble to analog slave shared memory at run time.

Library Utility provides the other Bootstrap Loaded Operating System functions with a library of frequently used Pascal functions and procedures to interface with the operator through the SETCOM and for string manipulation.

The Trace utility provides software to store data on cassette memory for purposes of data collection and software debug. It also provides for the operator interface to use and manipulate the Trace utility.

The Pascal Run Time System Interface provides the software to start up and subsequently shut down the Pascal Run Time System on the 8086 processor. It also provides an interface from the Pascal Run Time System to the STE-X error and exception handling routines.

3.1.1.2   12335947 PROM Resident Operating System CPC (HIP Rebaselined to 12336014 Core Operating System):
The PROM resident PROM Resident Operating System is executed on the 8086 main processor and consists of the software required to perform Power Up Confidence Test, to load the Bootstrap Loaded Operating System software from bubble to RAM, or to load the Bootstrap Loaded Operating System onto the bubble from the cassette or a host development system.

3.1.1.3   12335948 Onboard Slave CPC (HIP Rebaselined to 12336014 Core Operating System):
The PROM resident Onboard Slave software is executed on the 8051 CPU located on the CPU board. It provides for RAM memory refresh, time of day functions, counter/timer functions. For HIP, software was added for controlling the SETCOM Universal Asynchronous Receiver Transmitter (UART).

3.1.1.4   12335949 Analog Slave CPC (HIP Rebaselined to 12336014 Core Operating System):
The PROM resident Analog Slave software is executed on the 8051 CPU located on the Final Mux boards. It is responsible for analog measurements and stimulus, and controls bidirectional serial UART interface.

3.1.2   CPC Loaded at Run Time:

3.1.2.1   12335950 Software Transfer CPC (HIP Rebaselined to 12336016 Core Utilities):
The Software Transfer software provides for transferring Applications software from a host VAX to the STE-X mainframe bubble. It also provides software for transferring the Bootstrap Loaded Operating System from mainframe bubble to cassette bubble, the Bootstrap Loaded Operating System from cassette bubble to mainframe bubble, and applications code from mainframe bubble to cassette bubble.

3.1.2.2   12335951 Analog Debug CPC (HIP Rebaselined to 12336014 Core Operating System):
The Analog Debug Software provides complete STE-X operator access to the measurement and stimulus capability of the STE-X hardware.

3.1.2.3 <u>12335952 DFL Interpreter CPC (HIP Rebaselined to 12336012 Core DFL Interpreter)</u>:

The Diagnostic Flowchart Language (DFL) Interpreter is loaded by the Program Loader when needed to interpret an application written in DFL and invokes the necessary operating system software. The DFL Interpreter initializes an interface to the Operating System, moves the application DFL object files from mainframe bubble to RAM, interprets the DFL object code and invokes the Operating System Software necessary. DFL object code can call for operator interface, measuring external signals, generating stimuli and comparing results.

3.1.2.4 <u>12335953 Cable Interpreter CPC (HIP Rebaselined to 12336014 Core Operating System)</u>:

The Cable Interpreter is loaded by the program loader at runtime from mainframe bubble to RAM to interface with the operator to inquire which cable test is to be run, which cable and what cable end is to be tested. The Cable Interpreter then interprets the cable table of pins and connections and performs continuity testing and then shorts testing on the selected cable. Shorts test is accomplished by testing a selected pin against all other pins looking for unexpected shorts. Results are returned to the operator.

3.1.2.5 <u>12361352 HIP DFL Interpreter System Extensions</u>:

To support the HIP application for OT, HIP DFL Interpreter Extension Software was added. The HIP DFL Interpreter Extension provides operator access to hardware added for the HIP application, specifically RS422 serial communications routines to perform both synchronous and asynchronous serial data transfer on the two RS422 serial ports added, and 1553B Bus communications routines to perform and control communication on the dual redundant 1553B busses added. When a HIP specific measurement word is recognized by the Core DFL Interpreter, it passes a one-byte parameter to the HIP DFL Extensions Interpreter. With a one-byte parameter passed up to 256 HIP DFL words can be supported, only nine were used. The HIP DFL Extension Interpreter checks to see if the passed parameter is supported by the nine new DFL words. If not, a flag is set and returned to the Core DFL Interpreter error handling routines. If the passed parameter is supported, the measurement word function will be performed. The nine new DFL words can be broken down into two categories, seven designed to handle 1553B communications, and two to handle RS422 communications.

The 1553B DFL measurement words are as follows:

BUSCH,   rt, mask - logically AND the last status word received from the specified remote terminal (rt) with the mask provided (mask), leave the result in the integer accumulator.

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DEFINE1553,   dev, bus, ref, rt - defines the 1553B bus as a remote
               terminal, bus controller, or bus monitor (dev),
               defines which dual redundant bus to use (bus),
               defines the reference voltage of 0-10 or 15, if STE-X
               is defined to be a remote terminal in the first
               parameter (dev) then defines STE-X's remote terminal
               address (rt).

SEND1553,   rt, msg - sends message (msg) to remote terminal
               (rt). STE-X must be in the bus controller mode.

SEND1553,   msg - sends message (msg) to the current bus
               controller.

READ1553,   iram, rt - reads data on the 1553B bus from remote
               terminal (rt) and stores it at a specified integer
               RAM location (iram).

READ1553,   iram - reads data on the 1553B bus from the current
               bus controller and stores it at a specified integer
               RAM location (iram).

TAKE1553,   time, iram - takes control of the 1553B bus in the
               specified number of seconds (time), returns a flag
               indicating whether taking control was accomplished
               and stores it in a specified integer RAM location
               (iram).

The RS422 DFL measurement words are as follows:

READ422,   chan, iram - Reads data from the specified RS422
               channel (chan) and stores it at integer RAM locations
               beginning at specified address (iram).

SEND422,   chan, msg - Sends data (msg) over the specified RS422
               channel (chan).

3.1.2.6   12361350 HIP Operating System Extensions:
           New operating system software, HIP Operating System Extensions,
           was written to support three STE-X functions added for the HIP
           vehicle application. The three added STE-X functions are software
           drivers for the MIL-STD-1553B dual redundant bus, software drivers
           for the RS422 serial ports and software to download PDIU software
           from STE-X to the PDIU.

           Communication between the HIP vehicle LRU's is held on dual
           redundant MIL-STD-1553B busses. To communicate with the LRU's on
           the 1553B busses, hardware was added on a new board, the 1553B
           Interface Board, and Operating System Extensions software written
           to drive the 1553B hardware. The new software consists of all
           routines necessary for initializing 1553B hardware and for
           transmitting and receiving messages on the 1553B bus, as specified
           in MIL-STD-1553B, as needed by HIP. Some message transmission
           options specified in MIL-STD-1553B are not used for HIP and,
           therefore, were not supported by STE-X.

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RS422 Serial Ports were added to communicate with the MAPS unit on the HIP vehicle, using protocol specified in "Critical Item Development Specification, Dynamic Reference Unit." STE-X, using the RS422, sends commands to and receives responses from the MAPS unit. Hardware was added on a new board, the 1553B Interface Board, and Operating System Extensions software written to drive the RS422 hardware. The new software consists of all routines necessary to initialize RS422 hardware and for transmitting and receiving messages on the RS422 bus.

Operating System Extensions software was written to give STE-X the capability to field reprogram PDIU applications code by down-loading from STE-X to the PDIU over the RS422 bus. Software was added to initialize the interface over the RS422 bus between STE-X and PDIU, to look for and transfer the STE-X file "PDIU.MEM," and to assure the transfer was accomplished correctly.

3.2   12335632 STE-X Development Support CPCI

3.2.1   12335960 Build Utility (HIP Rebaselined to 12336020 Build Utility)
The Build Utility is the VAX side of the Software Transfer Utility. Build locates and downloads all the files that a target STE-X requires in an application software package. Build provides transfer error checking; it checks application compatability with the operating system. Build produces a chronicle file listing the files transferred and the results of the transfer.

3.2.2   12335961 CSCT Utility Programs (HIP Rebaselined to 12336019 CSCT Utility):
The Computer Source Code Translator (CSCT) Utility provides a debugging aid for DFL programs to be run on a VAX computer. It translates an error-free DFL file and simulates the logical flow of the test.

3.2.3   12335962 TWG Utility Programs (HIP Rebaselined to 12336018 GTWG/XTWG Utilities):
The Test Word Generator (TWG) Utility Programs translate DFL files into binary form to be interpreted by the DFL Interpreter at runtime. Global TWG (GTWG) software processes the Globals, frequently used action messages, actions words, limit pairs and measurment words called by DFL tests, to save memory. STE-X TWG (XTWG) translate DFL test files into binary form. XTWG was changed on HIP to include nine new measurement words added to support RS422 and 1553B communication.

3.2.4   12335963 Operating System Development Support (HIP Rebaselined to 12336017 Intel Utilities):
Operating System Development Support software consists of software to be run on an Intel development system to aid in compiling, building, and transferring the STE-X Operating System. Utilities are provided to initialize the Intel file structure; to create the Operating System shell; to create a STE-X Operating System to be loaded at serial cold start; to create a STE-X Operating System to

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be loaded by STEXLD; to set the baud rate for serial coldstart transfer; and to transfer the STE-X Operating System from the Intel to STE-X at serial cold start.

3.2.5   12336021 ASM51:
Not previously released, ASM51 software provides a 8051 assembler developed by GE to run on a VAX-11/780.

3.2.6   12336022 PASC51:
Not previously released, PASC51 software provides a Pascal 8051 Compiler developed by GE to run on a VAX-11/780.

3.2.7   12336023 STEXUTIL:
STEXUTL provides developmental software for two specific purposes. GTGEN.pas was released on STE-X with DFL Interpreter Programs. The purpose of GTGEN is to generate the Global Template Table (GTT.LD) and the Global Measurement Table (GMT.LD)--two Global files used by the STE-X DFL Interpretor. MSGMRG.pas was not previously released. MSGMRG merges Global Action Message (GAM) files into the file ALLGAM.LD--a file used by the DFL Interpreter.

3.2.8   12336024 XPREP:
XPREP is a developmental utility to preprocess STE-M1/FVS DFL files and convert them to STE-X DFL files. The XPREP utility was released with HIP software but not changed for HIP or used on HIP.

3.2.9   12336025 XSHARE:
XSHARE is a developmental utility for software configuration management. XSHARE provides for "get"--getting files from a software configuration management library, and "share"--placing files into a software configuration management library.

3.3   12335634 STE-X Selftest CPCI:

3.3.1   12335954 Mainframe Selftest (HIP Rebaselined to 12336015 Mainframe Selftest):
The Mainframe Selftest software isolates STE-X faults to the board level in the STE-X mainframe. Isolated functions are the Final Mux, CPU, Bubble Memory, Memory Module, STE-ICE function.

3.3.2   12335955 Interface Module Selftest (HIP Rebaselined to 12361351 HIP Module Selftest):
The Interface Module Selftest software isolates STE-X faults to the board or cable in or attached to the M1/M2/HIP module. Isolated functions or cables included are the IRU Drive, Special Functions, Mux Boards, 1553 board, the CX305 cables and the HIP CX802, CX803 cables. Added functionality for HIP includes the RS422 and RS1553 communications on the HIP 1553 board and cable test on the HIP CX802 and CX803 cables.

3.4   12335636 STE/ICE Applications CPCI:

3.4.1   12335958 STE/ICE Applications S/W (HIP Rebaselined to 12336011
         STE/ICE Applications S/W):
         STE/ICE Applications CPCI software provides the software to run
         STE/ICE equivalent tests with STE-X. The STE-X/ICE interpreter
         uses four major data structures: test definitions, vehicle
         definition, permanent global area, and the transient global area.
         The test definitions define the operating parameters of each of
         the STE-X/ICE tests. All established test definitions reside in
         the test definition files (TDF) on STE-X bubble memory. Up to two
         active test definitions may be copied into the transient global
         data area for reference.

         Vehicle definitions for all vehicles supported by this application
         package reside in the vehicle definition file in the bubble
         memory. One vehicle definition may be copied into the permanent
         global data area. The vehicle definition includes: the vehicle
         identification number (VID), the vehicle name or military
         designation, the generic DCA class to which the vehicle belongs,
         the number of cylinders, the number of strokes per engine cycle,
         and special test constants for the engine power test, and
         compression unbalance.

         The transient global data area contains information regarding the
         test (or tests) that are active during a particular invocation of
         STE-X/ICE. The transient global data is initialized whenever
         STE-X/ICE is invoked and lost when control is returned to the
         STE-X executive.

         The permanent global data area is initialized the first time
         STE-X/ICE is called and maintained as long as the test set is
         powered. The permanent global data include vehicle definitions,
         transducer channel offsets, and operator entered test data.
         STE-X/ICE software was changed, although not specifically for HIP,
         to account for hardware changes made to attenuate damaging voltage
         spikes.

3.5   12335633 SETCOM CPCI:

         SETCOM software provide the operator the capability to interface
         with STE-X. It also performs SETCOM Power Up Confidence Test
         (PUCT), Digital Multimeter (DMM) functions, and DMM selftest. In
         the interface mode, the SETCOM software provides the operator the
         ability to input test numbers, respond to queries, and issue
         commands to control test flow. In the interface mode, the DMM
         switch is monitored to see if the operator wants to go into DMM
         mode. SETCOM PUCT Software checks to see if the SETCOM is fully
         functional. The CPU, RAM and PROM are checked. DMM Selftest
         SETCOM Software checks the hardware of the DMM board to make sure
         components and measurement paths are operational. DMM SETCOM
         Software lets the operator use the SETCOM to make AC and DC
         voltage measurements, AC and DC current measurements, frequency
         and resistance measurements.

3.6   12362002 HIP Applications CPCI:

HIP Applications Software contains three CPC's written to diagnose
problems on the HIP vehicle, Microclimate Conditioning System
(MCS) Test, Automatic Fire Control System/Cab Electrical
(AFCS/CABEL) Test, and Hip Cable Test.

3.6.1   12361347 MCS Test:
The MCS Applications Software isolates faults in the MCS system on
the HIP vehicle. Testing is broken down into 11 modules. The MCS
Test Manager module controls the flow of MCS testing. The MCS
Test Manager calls five Phase-One state modules where measurements
are made, queries asked of the operator, and flags set based on
the results. Based on the data collected and flags set in the
Phase-One state modules, the MCS Test Manager then calls
appropriate isolation module if necessary. The following are
isolated Air Distribution System, Air Particle Seperator, Freon
Charge, Hull Batteries, Hull Battery Charging System, M48 Filter,
MCS Control Panel, MCS Main Pack, Slip Ring, W56, W57, W58 in
following combinations:

                '$_REPLACE M48 FILTER'
                'FAULTY AIR DISTRIBUTION_SYSTEM   '
                'FAULTY AIR PARTICLE SEPERATOR'
                'FAULTY FREON CHARGE'
                'FAULTY HULL BATTERIES'
                'FAULTY HULL BATTERY/CHARGING SYS'
                'FAULTY MCS CONTROL PANEL'
                'FAULTY MCS MAIN PACK OR W58'
                'FAULTY MCS MAIN PACK'
                'FAULTY SLIP RING OR W57'
                'FAULTY SLIP RING OR_W56 AND W57   '
                'FAULTY SLIP RING'

3.6.2   12361348 AFCS/CABEL Test:
AFCS/CABEL Applications Software provides software to test the
Automatic Fire Control System (AFCS) and Cab Electrical system.
Ninety modules are broken down into three main functions, Common
Core, AFCS, and CABEL. Common Core contains 21 modules, such as
test managers, standard conditions, and frequently use functions
such as turning on or off vehicle power, or special functions such
as making multiple power or resistance measurements.

AFCS contains 47 modules specifically for identifying then
isolating faults in the AFCS system. Faults are isolated in the
Ballistic Computer Weapon Controller (BCWC), Communication
Processor (CP), Display and Control Unit (DCU), Dynamic Reference
Unit (DRU), Power Conditioning Unit (PCU), Prognostic Diagnostic
Interface Unit (PDIU), Slip Rings (SLR), Radio Racks and the
Vehicle Motion Sensors on the cab and hull (VMS-C). (VMS-H) or
W1, W2, W7, W13, W14, W11, W12, W13, W14, W17, W21, W28, W26, W27,
W61, W62, W111 cables in the following combinations:

```
'$_SYSTEM ERROR'
'FAULTY BCWC AND_(PCU, W1 P1-P3, OR W13 P2-P3)'
'FAULTY BCWC OR W̄7 P1-P3'
'FAULTY BCWC'
'FAULTY CP AND_(PCU, W1 P1-P4, OR W13 P2-P3)'
'FAULTY CP AND¯(PCU, W2 P1-P4, OR W14 P2-P3)'
'FAULTY CP'
'FAULTY CP,RR,W9,W10,W11,W12,OR W26'
'FAULTY DCU AND_(PCU, W1 P1-P2 OR W13 P2-P3)'
'FAULTY DCU AND¯(PCU, W2 P1-P2 OR W14 P2-P3)'
'FAULTY DCU OR W̄17 P1-P3'
'FAULTY DCU'
'FAULTY DCU, OR W17 P1-P2,P3'
'FAULTY DRU AND_(PCU OR W27)'
'FAULTY DRU OR W̄17 P1-P3'
'FAULTY DRU'
'FAULTY PCU AND_(CP,RR,W9,W10,W11,W12,OR W26)'
'FAULTY PCU OR W̄13 P1-P2'
'FAULTY PCU OR W14 P1-P2'
'FAULTY PCU OR W27'
'FAULTY PCU'
'FAULTY PCU, W1 P1-P2_OR W13 P2-P3      '
'FAULTY PCU, W1 P1-P3¯ OR W13 P2-P3'
'FAULTY PCU, W1 P1-P4, OR W13 P2-P3'
'FAULTY PCU, W2 P1-P2, OR W14 P2-P3      '
'FAULTY PCU, W2 P1-P3, OR W14 P2-P3'
'FAULTY PCU, W2 P1-P4, OR W14 P2-P3'
'FAULTY PDIU AND_(PCU OR W13 P1-P2)'
'FAULTY PDIU AND¯(PCU OR W14 P1-P2)'
'FAULTY PDIU'
'FAULTY SLR OR W111 P5-P1,P2'
'FAULTY SLR OR W62 P7-BB2'
'FAULTY SLR,W61 P1-P2,P3,P4,P5,P6,_W62 P1-P2,P3,P4,P5,P6,
          W111'
'FAULTY STEX'
'FAULTY TTS OR 12576092'
'FAULTY VMS, W21, OR W28'
'FAULTY VMS-C OR W̄17 P1-P3'
'FAULTY VMS-C'
'FAULTY VMS-H'
'FAULTY VMS-H'
'FAULTY W21'
```

Twenty-two modules are specifically for identifying then isolating
faults in the Cab Electrical system. Faults are isolated in the
BCWC, CP, DCU, DRU, Ext Batt A, Ext Batt B, Hull Batteries, Hull
Battery/Chg Sys, PCU, PDIU, Radio Rack, Slip Ring, or W1, W2, W13,
W14, W25, W26, W27, W50, W65 cables in the following combinations:

```
'FAULTY BCWC'
'FAULTY CP, W2 P1-P2,P3,P4      '
'FAULTY DCUᵀ
'FAULTY DCU, W1 P1-P2, OR W13 P2-P3'
```

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```
        'FAULTY DCU, W1 P1-P2, OR W13 P2-P3_AND W2 P1-P2 OR W14
    P2-P3'
        'FAULTY DCU, W2 P1-P2, OR_W14 P2-P3       '
        'FAULTY DRU OR W27 P1-P2'
        'FAULTY EXT BATT A AND EXT BATT B_OR W25 P1-P2,P3      '
        'FAULTY EXT BATT A OR W25 P2-P3'
        'FAULTY EXT BATT A'
        'FAULTY EXT BATT A, OR W25 P2-P3'
        'FAULTY EXT BATT B'
        'FAULTY HULL BATTERIES'
        'FAULTY HULL BATTERY/CHG SYS'
        'FAULTY PCU   OR W65 P1-P2'
        'FAULTY PCU AND (DCU, W1 P1-P2, OR W13 P2-P3)'
        'FAULTY PCU AND (DCU, W2 P1-P2, OR_W14 P2-P3)'
        'FAULTY PCU AND W25 P1-P3'
        'FAULTY PCU AND W25 P2-P3'
        'FAULTY PCU AND W50'
        'FAULTY PCU OR W13 P2-P1,P3'
        'FAULTY PCU OR W14 P2-P1,P3'
        'FAULTY PCU OR W25 P2-P3'
        'FAULTY PCU OR W65 P1-P2'
        'FAULTY PCU'
        'FAULTY PCU, OR W25 P1-P2,P3'
        'FAULTY PCU, OR W65 P1-P2'
        'FAULTY PCU,W1 P1-P2, OR W13 P1-P2,P3, W2 P1-P2 OR W14
                    P1-P2,P3'
        'FAULTY PCU,W2 P1-P2, OR W14 P1-P2,P3'
        'FAULTY PDIU OR W65 P1-P2'
        'FAULTY PDIU'
        'FAULTY PDIU'
        'FAULTY RADIO RACK OR W26 P1-P2'
        'FAULTY SLIP RING OR W50'
        'FAULTY SLIP RING'
        'FAULTY W1 P1-P2, OR W13 P2-P3, OR _W2 P1-P2, OR W14 P2-P3'
```

3.6.3   12361349 Cable Test:

For HIP, Cable Test was expanded to perform cable test and adapter
test on the following HIP tables, and adapter tables were expanded
to include the following HIP specific cables and adapters:

CABLES		ADAPTERS	
W1	W27	CA800	CA824
W2	W28	CA802	CA826
W7	W50	CA804	CA828
W12	W51	CA806	CA832
W13	W52	CA810	CA837
W14	W58	CA814	CA838
W17	W61	CA816	CA840
W21	W62	CA818	CA998
W25	W64	CA820	
W26	W65	CA822	

4.0   HIP ANALYSER SET (STE-X) OPERATIONAL TEST (OT)

This section documents the HIP STE-X OT test performed at Yuma Proving Grounds, Arizona, during 1989. This test and the analysis of the Test Incident Reports (TIRs) generated from the test (see appendix B) was supported by GE under the STE-X OT contract from June 1989 until January 1990.

4.1   Yuma OT Test Format

The Yuma HIP STE-X technical test consisted of both Go Chain and fault insertion tests. These tests were conducted on the STE-X HIP AFCS, Cab Electrical and MCS subsystem tests. Additionally, the STE-X Cable, Adapter and STE/ICE Go chain tests were also run.

The fault insertion tests consisted of running a randomly selected group of Validation Test Reports (VTRs). Two Fault Insertion Boxes (FIBs) supplied by GE were used. GE provided informal training and documentation on how to use the FIB and follow the VTR instructions.

It is important to note that VTRs and FIBs are not part of the operational procedures and equipment normally used by mechanics. Problems associated with the use of these special procedures and equipment do not affect the evaluation of STE-X since they are not used in the field environment.

A TIR was written every time a fault insertion or Go Chain test was performed, even when the test was a success. The government's "OT evaluation" scores go from Success to Failure and include No Test, Crew Procedural Error, Unreliable and OT failure (incorrently conducted test) results.

4.2   HIP STE-X TIRs

Five hundred and two HIP STE-X TIR's have been received documenting OT testing at Yuma Proving Grounds.

The following are the results of the initial OT scores where Unreliable scores are included as failures and No Tests, Crew Procedural Errors and OT Failures (Failures in the way the evaluation test was run) are not counted.

System/Test	Success	No Test	Crew Error	Unreliable	Fail	% Success
STE-X:						
AFCS Test	99	5	3	5	18	81.1%
CAB EL Test	57	16	7	16	36	52.3%
MCS Test	53	2	1	6	9	77.9%
Self Test	28	24	3	0	18	60.9%
Cable Test	10	5	0	2	2	71.4%
Adapter Test	8	3	0	1	1	80.0%
ICE Tests	11	29	0	0	20	35.5%
STE-X Total	266	84	14	30	104	66.5%

4.3 Yuma HIP STE-X OT TIR Analysis

As the TIRs were received by GE, they were logged into a TIR database. This database, with the TIR status at the conclusion of work, is shown in Appendix B. Note that a blank status block indicates an open TIR which was not responded to prior to the termination of work.

An initial analysis was performed to determine whether a response was required. This initial analysis consisted mostly of reading each TIR and correlating it with incident descriptions on other TIRs. In most cases, the TIR failures are answered on succeeding TIRs where operator errors, vehicle and test set hardware failures are confirmed.

Of the 502 TIRs received by GE, responses were required for the 134 Failure and unreliable scores. An additional 58 TIRs scored as No Test also required responses, due to incorrect evaluation scoring. Of these 192 open TIRs, GE responded to 38 before being requested to stop work.

Sixty-eight TIRs require further analysis to determine the cause of the incident result and the correct evaluation score.

One STE-X test set (A1 Input Mux Board), 4 cables (a CX801, CX802, CX804 and a CX805) and a CA830 adapter failed during the technical test. This initially caused problems while running self test, but once these were corrected, a self test was run repeatedly without problems.

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The following is the status of the OT scoring as a result of this preliminary analysis:

OT Scores - Preliminary Review

System/Test	Success	No Test	Crew Error	Unreliable	Fail	% Success
STE-X:						
AFCS Test	107	7	5	1	9	91.5%
CAB EL Test	N/A	N/A	N/A	N/A	N/A	N/A
MCS Test	56	0	6	0	9	86.1%
Self Test	61	9	0	0	3	95.3%
Cable Test	15	0	3	0	1	93.7%
Adapter Test	10	1	1	0	1	90.9%
ICE Tests	16	39	0	0	5	76.2%
STE-X Total	265	53	15	1	28	90.1%

A detailed description of the TIRs for each subsystem follows:

AFCS Test: The initial OT scores for AFCS tests included 18 Fail and five Unreliable TIR scores. Preliminary analysis determined the following:

o Five failure scores were caused by VMS failures in the vehicle which were successfully detected by STE-X and the scores should be changed to successes.

o Seven failures were caused by faulty STE-X CX805 cable.

o One failure and one unreliable score were caused by a Honeywell Tube Temp status software problem. Both should be scored as a "No Test".

o Crew Procedural Errors accounted for one fail and one unreliable score.

o A typographical error (wrong Fault termination number) on a VTR caused one No Test and one Unreliable score. Based on the HIP STE-X test plan approved for the HIP, the VTR is corrected and the scores should be changed to successes.

o An obsolete VTR from a previous version of HIP STE-X software was run four times causing two fail and two No Test scores. These scores should be changed to OT Fail, since the instructions in the STE-X documentation package were not followed in selecting VTRs for the test.

Cab Electrical Test: The initial OT scores for Cab Electrical tests included 36 Fail and 16 Unreliable TIR scores. GE investigated these problems and discovered a ground loop problem in the vehicle causing 6 to 8.5 volts to be present on open signals. This ground loop problem was also causing problems with the PDIU and instrumentation installed by the Army.

While GE was not able to isolate the ground loop problem, this problem is not present in any other vehicle. GE believes the Cab Electrical test results are invalid, because the test was performed on a modified vehicle which does not represent the HIP vehicle design.

MCS Test: The initial OT scores for MCS tests included nine Fail and six Unreliable TIR scores. Preliminary analysis determined the following:

o One Failure and two No Test scores were assigned to successful tests.

o Five Unreliable scores were caused by crew procedural errors. These errors deal with running the test with the VTRs and are not indicative of using the STE-X in the field.

o One Unreliable score was caused by a software message problem and should be scored as a failure.

o The remaining eight Failure scores have not been analyzed.

STE-X Self Test: The initial OT scores for STE-X Self Test included 18 Fail TIR scores. Preliminary analysis determined the following:

o Two Fail, two Crew Procedural Error and two No Test scores were caused by a faulty CX801 which was successfully detected by Self Test and the scores should be changed to successes.

o Eight Fail scores were caused by a faulty CX802 which was successfully detected by Self Test, and the scores should be changed to successes.

o Three Fail, one Crew Procedural Error and three No Test scores were caused by a faulty CX804 which was successfully detected by Self Test, and the scores should be changed to successes.

o Two Fail scores were caused by a faulty CA830 which was successfully detected by Self Test, and the scores should be changed to successes.

o Ten No Test scores were assigned to successful tests.

STE-X Adapter Test: The initial OT scores for STE-X adapter test included one Fail and one Unreliable TIR scores. Preliminary analysis determined the following:

o The Unreliable score was caused by a Crew procedural error with the fault insertion box.

o Two No Test scores were assigned to successful tests.

Cable Test: The initial OT scores for STE-X Self test included two Fail and two Unreliable TIR Scores. Preliminary analysis determined the following:

o Two Unreliable and one Fail scores were caused by Crew Procedural errors.

o The cause of the remaining Fail score has not been determined.

o Five No Test scores were assigned to successful tests.

STE-X STE-ICE Tests: The initial OT scores for STE-X STE-ICE tests included 20 Fail TIR scores. Preliminary analysis determined the following:

o Nine Fuel Supply Pressure test failures were caused by a broken pin in the DCA. The TIR scores should be changed to No Test. The DCA is the responsibility of the vehicle manufacturer and not part of STE-X.

o Six Alternator Field Voltage test failures occurred. Inspection of DCAs on other HIP vehicles has shown this signal to be miswired. It is believed that this is the case on this vehicle, too. The TIR scores should be changed to No Test. The DCA is the responsibility of the vehicle manufacturer and not part of STE-X.

o Five No Test scores were assigned to successful tests.

5.0   COMMON STE-X REVIEW

On 8 August 1990, a meeting was conducted under this contract to review the common STE-X software to assist in applying STE-X to specific applications. In attendance were representatives from TACOM, Missile Command (MICOM), LTV Corporation, and GE to discuss the Army Tactical Missile System (TACMS) Missile Monitor Test Device (MMTD) (AN/TSM-193) as the only currently active application. A memo of the minutes for this meeting is contained in Appendix C, with all action items appropriately closed.

For record purposes, Appendix D contains a matrix describing the STE-X support tools. In addition, Appendix E contains a list of all the common hardware between the two STE-X development applications to date - the HIP analyzer set and the Army TACMS MMTD.

6.0   FINANCIAL SUMMARY

The latest available financial performance data on this contract, which includes estimated expenditures through contract close-out, is contained in Appendix F.

7.0   RESIDUAL MATERIAL DISPOSITION RECOMMENDATION

GE recommends that all material under TACOM Contract No. DAAE07-88-C-R133 be transferred to the MICOM Contract No. DAAH01-86-C-A036, LTV No. P-3108760.

APPENDIX A

ENGINEERING CHANGE NOTICE (ECN) LISTING

ENGINEERING CHANGE NOTICE (ECN) LISTING

J54254	J56500	J61100
J54255	J56501	TO
J54256	J56502	J61147
J54257	J56503	J61149
J54258	J56505	J61149
J54259	J56506	TO
J54260	J56507	J61199
J54261	J56509	
J54262	J56515	J64200
J54263	J56516	J64205
J54264	J56517	J64209
J54265	J56518	J64226
J54266	J56519	J64227
J54267	J56520	J64228
J54268	J56521	J64229
J54269	J56524	J64238
J54270	J56525	J64262
J54271	J56528	J64263
J54272	J56530	
J54273	J56531	J65405
J54274	J56532	J65411
J54275	J56536	J65412
J54276	J56537	J65450
J54277	J56538	J65452
J54278	J56542	J65459
J54279	J56545	J65460
J54280	J56546	J65465
J54281	J56552	J65466
J54282	J56553	J65495
J54283	J56560	
J54284	J56563	J67200
J54285	J56564	TO
J54286	J56567	J62764
J54287	J56568	
J54288	J56569	J69906
J54289	J56577	J69932
J54290	J56580	J69936
J54291	J56581	
J54292	J56595	
J54293		
J54294	J557500	
J54295	TO	
J54296	557599	
J54297		
J54298		
J54299		

APPENDIX B

HIP STE-X
TEST INCIDENT REPORT (TIR)
LOG

HIP TEST INCIDENT REPORT (TIR) LOG

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
KE-B6013	N/A	N/A	N/A	DU screen was blank - STE-X faulted the DCU. The DCU unit received from spares was also faulty	890617	6385	N/A	N/A	N/A	NO ACTION	None. STE-X worked successfully STE-X is not under contract to isolate between DU and CU.
K2-J0055	N/A	N/A	N/A	STE-X/ICE failure. DCA Connector Miswired	890303	2207	-	-	89••••	NO ACTION	The STE-X hardware failed due to overvoltage on a ground wire caused by miswiring in the vehicle.
L5-STE0002	STE-X	ICE	No Test	STE-ICE Baseline tests	890712		N/A	N/A	N/A	N/A	N/A
L5-STE0003	STE & PDIU	SYS & PDIU SELF	OBT Fail SELF	Ran STE-X self test and PDIU System Test. Self test Faulted CX801 cable intermittently	890728		N/A	N/A	N/A	N/A	N/A
L5-STE0020	STEX	MCS 1	Bite Succ		890811		N/A	N/A	N/A	N/A	N/A
L5-STE0053	STEX	CAB EL SYS	No Test	Test ran correctly	890801		MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0054	STEX	CAB EL SYS	No Test	Test ran correctly	890801		MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0055	STEX	CAB EL SYS	No Test	Test ran correctly	890801		MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0056	STEX	CAB EL SYS	No Test	Test ran correctly	890801		MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0057	STEX	SELF TEST	Crew Proc Err	Faulted CX804 - Rerun and passed - assumed to be an operator Error	890801		N/A	N/A	N/A	N/A	N/A
L5-STE0058	STEX	CAB EL SYS	No Test	Test ran correctly	890801		N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0059	STEX	SELF TEST	No Test	Faulted CX804	890801						
L5-STE0060	STEX	CAB EL SYS	No Test	Test ran correctly	890801		MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0061	STEX	CAB EL SYS	No Test	Documents Cab EI System Test runs reported on other TIR's	890801		N/A	N/A	N/A	N/A	N/A
L5-STE0062	STEX	CAB EL SYS	CREW PROC ERR	Detected Backup Battery Problem - Faulted EXT BATT A	890801		N/A	N/A	N/A	N/A	N/A
L5-STE0063	STEX	CAB EL SYS	No Test	Test ran correctly	890801		N/A	N/A	N/A	N/A	N/A
L5-STE0064	STEX	CAB EL SYS	NO TEST	Detected Backup Battery Problem -Faulted EXT BATT A	890801		N/A	N/A	N/A	N/A	N/A
L5-STE0065	STEX	CAB EL SYS	No Test	Test ran correctly	890801		N/A	N/A	N/A	N/A	N/A
L5-STE0066	STEX	CAB EL SYS	CREW PROC ERR	- Faulted PCU or W65	890801		N/A	N/A	N/A	N/A	N/A
L5-STE0067	STEX	CAB EL SYS	No Test	Test ran correctly	890801		N/A	N/A	N/A	N/A	N/A
L5-STE0068	STEX	CAB EL SYS	CREW PROC ERR	Detected Backup Battery Problem - Faulted EXT BATT A	890801		N/A	N/A	N/A	N/A	N/A
L5-STE0070	STEX	SELF TEST	-	Faulted CX801 cable - Test passes when the CX802 cable is used instead of the CX801	890802	2856					
L5-STE0071	STEX	SELF TEST	CREW PROC ERR	Faulted CX801 cable - Test passes when the CX802 cable is used instead of the CX801	890802	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEN. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0072	STEX	SELF TEST	CREW PROC ERR	Faulted CX801 cable — Test passes when the CX802 cable is used instead of the CX801	890802	2856					
L5-STE0073	STEX	SELF TEST	NO Test	No Faults found — used CX802 cable instead of the CX801	890802	2856					
L5-STE0074	STEX	SELF TEST	NO Test	No Faults found — used CX802 cable instead of the CX801	890802	2856					
L5-STE0075	STEX	MCS 25	Crew Proc Eror	Operator connected FIB backwords	890802	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0076	STEX	AFCS SYS TEST	OBT Fail	Test run to isolate VMS problem detected by BIT/BITE — ran into DBA adapter problem, given Field bulletin — VMS to be replaced based on Honeywell/BMY reps	890817	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0077	STEX	MCS 25	Succ		890802	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0079	STEX	MCS 25	Succ		890802	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0080	STEX	AFCS SYS TEST	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0081	STEX	MCS3	Unre liab	Probes hookup message error	890818	2856					
L5-STE0082	STEX	MCS3	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0083	STEX	MCS 10	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0084	STEX	MCS 15	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG #	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0091	STEX	MCS 25	Fail	Wrong fault message rec'd	890818	2856					
L5-STE0092	STEX	MCS 18	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0094	STEX	MCS 20	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0095	STEX	MCS 23	Unreliab	Operator hooked up wrong cable	890818	2856					
L5-STE0096	STEX	MCS 23	Succ		890818	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0097	STEX	MCS 25	Fail		890818	2856					
L5-STE0098	STEX	MCS 35	Fail		890818	2856					
L5-STE0099	STEX	MCS SYS TEST	SUCC	Discovered a Faulty MCS control panel	890818	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0100	STEX	MCS 35	FAIL		890818	2856					
L5-STE0101	STEX	AFCS P2-1	SUCC		890818	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0102	STEX	MCS 37	SUCC		890818	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0103	STEX	MCS 39	SUCC		890818	2856	N/A	N/A	N/A	N/A	N/A

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG#	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0104	STEX	MCS 25	SUCC		890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0105	STEX	MCS 35	SUCC		890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0106	STEX	MCS 42	SUCC		890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0107	STEX	MCS 43	FAIL		890821	2856					
L5-STE0108	STEX	MCS 43	FAIL		890821	2856					
L5-STE0109	STEX	MCS 43	FAIL		890821	2856					
L5-STE0110	STEX	MCS 53	SUCC		890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0111	STEX	MCS 56	SUCC		890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0112	STEX	MCS 59	FAIL	Wrong Fault Message	890821	2856					
L5-STE0113	STEX	MCS 43	SUCC		890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0114	STEX	MCS 64	Unre Liab	Operator/VTR Error. VTR does not identify how to answer airflow questions	890821	2856					
L5-STE0115	STEX	MCS 64	Unre Liab	Operator/VTR Error. VTR does not identify how to answer airflow questions	890821	2856					

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0116	STEX	AFCS P2-2	SUCC		890821	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0117	STEX	MCS 64	Unre Liab	Operator/VTR Error. VTR does not identify how to answer airflow questions	890822	2856					
L5-STE0118	STEX	MCS 64	SUCC		890822	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0119	STEX	AFCS P2-5	FAIL	Invalid VTR - Replaced by VTR # AFCS-P2-83	890822	2856	MDL	900131	900119	NO ACTION	None. STE-X documentation correctly identifies this VTR as obsolete
L5-STE0120	STEX	AFCS P2-5	FAIL	Invalid VTR - Replaced by VTR # AFCS-P2-83	890822	2856	MDL	900131	900119	NO ACTION	None. STE-X documentation correctly identifies this VTR as obsolete
L5-STE0121	STEX	AFCS P213	Crew Proc Err	Operator connected DBA on wrong side of FIB	890822	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0122	STEX	AFCS P213	SUCC		890822	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0123	STEX	AFCS P214	SUCC		890822	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0124	STEX	AFCS P230	FAIL	Operator connected DBA on wrong side of FIB	890822	2856	MDL	900131	900119	NO ACTION	None.
L5-STE0125	STEX	AFCS P230	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0126	STEX	AFCS P231	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0127	STEX	AFCS 38	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR #	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0128	STEX	AFCS 40	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0129	STEX	AFCS 75	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0130	STEX	AFCS 48	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0131	STEX	AFCS P262	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0132	STEX	AFCS P264	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0133	STEX	AFCS P270	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0134	STEX	AFCS P242	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0135	STEX	AFCS P276	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0136	STEX	AFCS P278	SUCC		890823	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0137	STEX	SELF TEST	No Test	Faulted CX001 - Operator found CX001 and CX002 from accessory box S/N 007 to be faulty	890824	2856					
L5-STE0138	STEX	SELF TEST	Fail	Faulted CX001 from S/N 007	890824	2856					
L5-STE0139	STEX	SELF TEST	Fail	Faulted CX001 from S/N 007	890824	2856					

MIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0140	STEX	SELF TEST	No TEST	Faulted CX801 from S/N 007	890824	2856					
L5-STE0141	STEX	SELF TEST	Fail	Faulted CA830 from S/N 004	890824	2856					
L5-STE0142	STEX	SELF TEST	Fail	Faulted CX802 from S/N 007	890824	2856					
L5-STE0143	STEX	SELF TEST	Fail	Faulted CX802 from S/N 007 using STE S/N 004	890824	2856					
L5-STE0144	STEX	AFCS P2-1	FAIL	Extra problem detected	890824	2856					
L5-STE0145	STEX	SELF TEST	No TEST	No Faults found using Accessory box S/N 006 and STE S/N 004	890824	2856					
L5-STE0146	STEX	SELF TEST	No TEST	Faulted CX804 from S/N 006	890824	2856					
L5-STE0147	STEX	SELF TEST	Fail	Faulted CX802 from S/N 005	890824	2856					
L5-STE0148	STEX	SELF TEST	Fail	Faulted CX802 from S/N 007	890824	2856					
L5-STE0149	STEX	SELF TEST	Fail	Faulted CX802 from S/N 007	890824	2856					
L5-STE0150	STEX	SELF TEST	Fail	Faulted CX802 from S/N 007 using STE S/N 004	890824	2856					
L5-STE0151	STEX	AFCS P282	SUCC		890824	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG#	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0152	STEX	AFCS P284	SUCC		890824	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0153	STEX	AFCS P286	SUCC		890824	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0154	STEX	AFCS P280	SUCC		890824	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0155	STEX	SELF TEST	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0156	STEX	AFCS SYS TEST	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0157	STEX	AFCS P265	Unre Liab	Received wrong fault termination number - VTR Error	890825	2856	MDL	900131	900131	HOLD	VTR Error - Will be corrected in next update of STE-X Documentation
L5-STE0158	STEX	AFCS P2-7	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0159	STEX	AFCS P264	FAIL	2 extra problems detected - VMS problem	890825	2856					
L5-STE0160	STEX	AFCS P284	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0161	STEX	SELF TEST	FAIL	Faulted CX802 from S/N 007	890825	2856					
L5-STE0162	STEX	AFCS P271	SUCC		890825	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0163	STEX	AFCS 65	UNRE	VTR Error, VMS problem in vehicle	890825	2856	MDL	900131	900131	HOLD	VTR Error - Will be corrected in next update of STE-X Documentation

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0164	STEX	AFCS 17	FAIL	VMS problem in vehicle	890825	2856					
L5-STE0165	STEX	SELF TEST	No Test	No Faults Found using accessory box s/n 006	890826	2856					
L5-STE0166	STEX	AFCS SYS TEST	No Test	Test ran correctly	890826	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0167	STEX	AFCS P217	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0168	STEX	AFCS P264	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0169	STEX	AFCS P238	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0170	STEX	CAB EL SYS	No Test	Test ran correctly	890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0171	STEX	AFCS P219	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0X172	STEX	AFCS P259	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0173	STEX	AFCS P232	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0174	STEX	AFCS P247	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0175	STEX	AFCS P233	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0176	STEX	AFCS P222	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0177	STEX	AFCS P2102	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0178	STEX	AFCS P241	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0179	STEX	CAB ELP2 6	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0180	STEX	CAB ELP2 19A	SUCC		890826	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0181	STEX	AFCS P283	SUCC		890828	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0182	STEX	? SYS TEST	No Test	Test ran correctly	890828	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0183	STEX	CAB ELP2 42	FAIL	No faults found – VTR Error	890828	2856					
L5-STE0184	STEX	CAB ELP2 42	FAIL	Faulted wrong LRU – VTR Error	890828	2856					
L5-STE0185	STEX	CAB ELP2 42	FAIL	Faulted wrong LRU – VTR Error	890828	2856					
L5-STE0186	STEX	CAB ELP2 36	FAIL	Wrong problem detected	890828	2856					
L5-STE0187	STEX	CAB ELP2 36	FAIL	Wrong problem detected	890828	2856					

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR #	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG #	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0188	STEX	CAB ELP2 42	SUCC	Ran with VTR corrected	890828	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0189	STEX	CAB ELP2 64	SUCC		890828	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0190	STEX	CAB ELP2 67	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0191	STEX	CAB ELP2 64	SUCC		890828	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0192	STEX	CAB ELP2 22	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0193	STEX	CAB ELP2 36	Unre Liab	Detected wrong problems – 2	890829	2856					
L5-STE0195	STEX	CAB ELP2 36	Unre Liab	Extra problem detected – problem in vehicle suspected	890829	2856					
L5-STE0196	STEX	CAB ELP2 20	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0197	STEX	CAB ELP2 21	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0198	STEX	CAB ELP2 23	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0199	STEX	CAB ELP2 29	SUCC		890829	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0200	STEX	SELF TEST	No Test	No Faults Found	890830	2856	N/A	N/A	N/A	N/A	N/A

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG#	ENG SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0201	STEX	ADAP TEST	No Test	Operator Error	890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0202	STEX	CAB EL SYS	Unre Liab	Faulted EXT BATT A	890830	2856					
L5-STE0203	STEX	CAB EL SYS	Unre Liab	Detected Backup Battery Problem	890830	2856					
L5-STE0204	STEX	CAB EL SYS	NO TEST	Test correctly resulted in no Faults found	890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0205	STEX	CAB ELP2 30	SUCC		890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0206	STEX	Adap Test	NO Test TEST	Test correctly resulted in no Faults found	890830	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0207	STEX	CAB ELP2 25	SUCC		890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0208	STEX	CAB ELP2 26	SUCC		890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0209	STEX	CAB ELP2 27	SUCC		890830	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0210	STEX	CAB ELP2 32	Unre Liab	Extra problem detected	890830	2856					
L5-STE0211	STEX	CAB ELP2 32	Unre Liab	Extra problem detected	890830	2856					
L5-STE0212	STEX	CAB ELP2 33	Unre Liab	Extra problem detected	890830	2856					

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MIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG #	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0213	STEX	CAB ELP2 33	Unre Liab	Extra problem detected	890830	2856					
L5-STE0214	STEX	Self Test	Fail	Faulted CX002 Cable	890831	2856					
L5-STE0215	STEX	Self Test	Fail	Faulted CX004 Cable	890831	2856					
L5-STE0216	STEX	Self Test	Fail	Faulted CAB30 Adapter	890831	2856					
L5-STE0217	STEX	Self Test	NO TEST	Test resulted in no Faults found	890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0218	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem	890831	2856					
L5-STE0219	STEX	CAB EL SYS	NO TEST	Test resulted in no Faults found	890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0220	STEX	CAB ELP2 37	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0221	STEX	CAB ELP2 38	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0222	STEX	CAB ELP2 43	Fail	Rec'd Faulty DCU Notification message - Did not find inserted fault	890831	2856					
L5-STE0223	STEX	CAB ELP2 43	Fail	Rec'd Faulty DCU Notification message - Did not find inserted fault	890831	2856					
L5-STE0224	STEX	CAB ELP2 54	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0225	STEX	CAB ELP2 53	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0226	STEX	CAB ELP2 61	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0227	STEX	CAB ELP2 66	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0228	STEX	CAB ELP2 93	SUCC	VTR Error	890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0229	STEX	CAB ELP2 88	SUCC	VTR Error	890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0230	STEX	CAB ELP2 34	Fail	No Faults Found	890831	2856					
L5-STE0231	STEX	CAB ELP2 44	SUCC		890831	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0232	STEX	AFCS P2 28	SUCC		890901	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0233	STEX	AFCS P2 53	Fail	Operator ran DBA workaround procedure	890901	2856					
L5-STE0234	STEX	CAB ELP2 2	Fail	VTR Error	890901	2856					
L5-STE0235	STEX	SELF Test	Fail	Faulted Test Set	890907	2856					
L5-STE0236	STEX	SELF Test	Fail	Faulted Test Set - MAJOR Incident Classification	890907	2856					

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0238	STEX	AFCS SYS TEST	SUCC		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0239	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem	890837	2856					
L5-STE0240	STEX	AFCS P2 53	SUCC		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0241	STEX	CAB ELP2 2	SUCC		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0242	STEX	CAB ELP2 34	Fail	No Faults Found	890907	2856					
L5-STE0243	STEX	SELF Test	Fail	Faulted Test Set	890907	2856					
L5-STE0244	STEX	Self Test	SUCC	Test resulted in no Faults found	890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0245	STEX	Self Test	SUCC	Test resulted in no Faults found	890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0246	STEX	AFCS P2 5	No Test	Invalid VTR	890907		N/A	N/A	N/A	NO ACTION	None.
L5-STE0247	STEX	AFCS P2 1	SUCC		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0248	STEX	AFCS P2 2	SUCC		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0249	STEX	AFCS P2 5	No Test	Invalid VTR	890907		N/A	N/A	N/A	NO ACTION	None.

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG#	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0250	STEX	AFCS P2 7	SUCC		890907	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0251	STEX	AFCS SYS TEST	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0252	STEX	AFCS P2 22	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0253	STEX	AFCS P2 33	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0254	STEX	Cabl Test	No Test	Test ran correctly	890908	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0255	STEX	Cabl Test	No Test	Test ran correctly	890908	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0256	STEX	Cabl Test	No Test	Test ran correctly	890908	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0257	STEX	AFCS P2 38	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0258	STEX	AFCS P2 48	Unre	Operator Error	890908	2856					
L5-STE0259	STEX	AFCS P2 48	Unre	2 Extra problems detected	890908	2856					
L5-STE0260	STEX	AFCS P2 48	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0261	STEX	AFCS P2 55	FAIL	TTS Fault not detected by STE-X	890908	2856					

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0262	STEX	AFCS P2 62	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0263	STEX	AFCS P2 64	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0264	STEX	AFCS P2 65	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0265	STEX	AFCS P2 17	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0266	STEX	AFCS P2 68	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0267	STEX	AFCS SYS TEST	FAIL	Faulted BCWC - Operator Suspects faulty CX805 or CA843 from Accessory box S/N 006	890911	2856					
L5-STE0268	STEX	AFCS SYS TEST	SUCC	Used CX805 and CA843 from S/N 007	890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0269	STEX	AFCS SYS TEST	FAIL	Faulted BCWC - Operator Suspects faulty CX805 or CA843 from Accessory box S/N 006	890911	2856					
L5-STE0270	STEX	SELF TEST	SUCC		890908	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0271	STEX	AFCS SYS TEST	FAIL	VMS BIT Failure	890909	2856					
L5-STE0272	STEX	AFCS SYS TEST	FAIL	VMS BIT Failure	890909	2856					
L5-STE0273	STEX	CABL TEST	UNRE	Tested W17 cable due to VMS problem - Operator Error	890909	2856					

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG#	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0274	STEX	CABL TEST	SUCC	Tested W17 cable due to VMS problem	890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0275	STEX	AFCS SYS TEST	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0276	STEX	AFCS P2 70	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0277	STEX	AFCS P2 71	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0278	STEX	AFCS P2 75	FAIL	VMS BIT Failure	890909	2856					
L5-STE0279	STEX	AFCS P2 75	FAIL	Test faulted BCWC and CP. Also detected Fire Cont Sys Problem	890909	2856					
L5-STE0280	STEX	AFCS SYS TEST	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0281	STEX	AFCS P2 75	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0282	STEX	AFCS P2 76	FAIL	Test faulted BCWC. Also detected Fire Cont Sys Problem —> Faulty CP	890909	2856					
L5-STE0283	STEX	AFCS P2 76	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0284	STEX	AFCS P2 78	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0285	STEX	SELF TEST	SUCC		890909	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0286	STEX	SELF TEST	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0287	STEX	AFCS SYS TEST	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0288	STEX	AFCS P2 B0	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0289	STEX	AFCS P2 B2	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0290	STEX	AFCS P2 B3	FAIL		890911	2856					
L5-STE0291	STEX	AFCS P2 B3	FAIL		890911	2856					
L5-STE0292	STEX	AFCS SYS TEST	OBT FAIL	Test Stopped due to Sys Fault lamp being on	890911	2856					
L5-STE0293	STEX	AFCS SYS TEST	OBT FAIL	Detected Auto Fire Cont and 1553 Bus problems	890911	2856					
L5-STE0294	STEX	SELF TEST	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0295	STEX	AFCS SYS TEST	FAIL	Test Stopped - used CX805 and CA843 from S/N 006	890911	2856					
L5-STE0296	STEX	AFCS SYS TEST	SUCC	Run using CX805 and CA843 from S/N 007	890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0297	STEX	AFCS SYS TEST	SUCC	Isolated problem to a faulty CX805 from S/N 006	890911	2856	N/A	N/A	N/A	N/A	N/A

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG #	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0298	STEX	AFCS P2 83	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0299	STEX	AFCS P2 84	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0300	STEX	AFCS P2 86	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0301	STEX	AFCS P2 102	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0302	STEX	MCS SYS TEST	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0303	STEX	MCS 10	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0304	STEX	MCS 15	SUCC		890911	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0305	STEX	MCS 18	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0306	STEX	MCS 20	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0307	STEX	MCS 23	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0308	STEX	MCS 25	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0309	STEX	SELF TEST	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0310	STEX	SELF TEST	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0311	STEX	MCS SYS TEST	FAIL	Test ran correctly to No Faults Found	890912	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0312	STEX	MCS 35	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0313	STEX	MCS 37	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0314	STEX	MCS 39	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0315	STEX	MCS 53	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0316	STEX	MCS 56	UNRE	Operator Error	890912	2856					
L5-STE0317	STEX	MCS 56	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0318	STEX	CAB EL SYS	UNRE	Detected Backup Battery Problem - Caused by Hull effects Instrumentation	890912	2856					
L5-STE0319	STEX	CAB EL SYS	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0320	STEX	CAB ELP2 2	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0321	STEX	CAB ELP2 6	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A

MIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0310	STEX	SELF TEST	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0311	STEX	MCS SYS TEST	FAIL	Test ran correctly to No Faults Found	890912	2856 MDL	900215		900212	NO ACTION	None. No apparent reason for score
L5-STE0312	STEX	MCS 35	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0313	STEX	MCS 37	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0314	STEX	MCS 39	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0315	STEX	MCS 53	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0316	STEX	MCS 56	UNRE	Operator Error	890912	2856					
L5-STE0317	STEX	MCS 56	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0318	STEX	CAB EL SYS	UNRE	Detected Backup Battery Problem - Caused by Hull effects Instrumentation	890912	2856					
L5-STE0319	STEX	CAB EL SYS	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0320	STEX	CAB ELP2 2	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0321	STEX	CAB ELP2 6	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0322	STEX	CAB ELP2 19A	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0323	STEX	CAB ELP2 26	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0324	STEX	CAB ELP2 25	UNRE	Wrong Fault message displayed	890912	2856					
L5-STE0325	STEX	CAB ELP2 25	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0326	STEX	CAB ELP2 27	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0327	STEX	CAB ELP2 32	UNRE	Extra problem detected	890912	2856					
L5-STE0328	STEX	SELF TEST	SUCC		890912	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0329	STEX	CAB EL SYS	Fail	Faulted PCU for power with CB #3 off	890913	2856					
L5-STE0330	STEX	CAB EL SYS	Fail	Faulted PCU for charging Problem	890913	2856					
L5-STE0331	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem and CB #3 fault	890913	2856					
L5-STE0332	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem and CB #3 fault	890913	2856					
L5-STE0333	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem and CB #3 fault	890913	2856					

MIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0334	STEX	CAB EL SYS	Fail	Faulted PCU for charging Problem	890913	2856					
L5-STE0335	STEX	SELF TEST	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0336	STEX	CABL TEST W65	UNRE	Operator Error	890913	2856					
L5-STE0337	STEX	CABL TEST W65	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0338	STEX	CAB SYS TEST	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0339	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem	890913	2856					
L5-STE0340	STEX	CAB EL SYS	Fail	Faulted PCU for charging Problem	890913	2856					
L5-STE0341	STEX	CABL TEST W25	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0342	STEX	SELF TEST	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0343	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem EXT BATT A suspected	890914	2856					
L5-STE0344	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem Instrumentation removed	890914	2856					
L5-STE0345	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem EXT BATT A suspected	890914	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0346	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem EXT BATT A suspected Also Faulted PCU for CB #3 prob	890914	2856					
L5-STE0347	STEX	ADAP TEST	UNRE	Operator Error with FIB	890914	2856					
L5-STE0348	STEX	ADAP TEST	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0349	STEX	MCS SYS TEST	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0350	STEX	MCS 10	SUCC		890913	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0351	STEX	MCS 15	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0352	STEX	MCS 18	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0353	STEX	MCS 20	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0354	STEX	MCS 23	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0355	STEX	MCS 25	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0356	STEX	MCS 35	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0357	STEX	SELF TEST	SUCC		890914	2856	N/A	N/A	N/A	N/A	N/A

MIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0358	STEX	ADAP TEST	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0359	STEX	MCS SYS TEST	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0360	STEX	MCS 37	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0361	STEX	MCS 39	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0362	STEX	MCS 53	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0363	STEX	MCS 56	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0364	STEX	AFCS SYS TEST	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0365	STEX	AFCS P2 1	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0366	STEX	AFCS P2 2	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0367	STEX	AFCS P2 7	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0368	STEX	AFCS P2 17	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0369	STEX	AFCS P2 22	-	Test ran correctly	890915	2856	MDL	900215	900212	NO ACTION	None.

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0370	STEX	AFCS P2 33	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0371	STEX	AFCS P2 38	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0372	STEX	SELF TEST	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0373	STEX	ADAP TEST	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0374	STEX	CAB EL SYS	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0375	STEX	AFCS SYS TEST	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0376	STEX	AFCS P2 55	UNRE	TTS Fault not detected by STE-X	890917	2856					
L5-STE0377	STEX	AFCS P2 59	CREW PROC ERR		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0378	STEX	AFCS P2 59	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0379	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem and Hull charging fault	890917	2856					
L5-STE0380	STEX	SELF TEST	SUCC		890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0381	STEX	CAB EL SYS	Fail	Detected Backup Battery Problem – Faulted PCU or W25	890917	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG #	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0382	STEX	AFCS P2 4B	SUCC		890915	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0383	STEX	SELF TEST	SUCC		890918	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0384	STEX	CABL TEST W1	SUCC		890918	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0385	STEX	CABL TEST W2	SUCC		890918	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0386	STEX	CABL TEST W7	Fail	Operator Error's during Probing	890918	2856					
L5-STE0387	STEX	SELF TEST	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0388	STEX	CAB EL SYS	SUCC	Detected Backup Battery Problem - Faulted PCU or W25	890919	2856					
L5-STE0389	STEX	CAB EL SYS	FAIL	Detected Backup Battery Problem - Faulted PCU or W25 Also had Hull Charging Fault	890919	2856					
L5-STE0390	STEX	CAB EL SYS	SUCC	Detected Backup Battery Problem - Faulted EXT BATT A	890919	2856					
L5-STE0391	STEX	CAB EL SYS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0392	STEX	CABL TEST W12	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0393	STEX	CAB EL SYS	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0394	STEX	CAB ELP2 64	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0395	STEX	CAB ELP2 84	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0396	STEX	AFCS SYS TEST	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0397	STEX	AFCS P2 62	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0398	STEX	AFCS P2 64	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0399	STEX	AFCS P2 65	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0400	STEX	AFCS P2 66	CREW PROC ERR		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0401	STEX	N/A NO TEST		GE Data collection	890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0402	STEX	CABL TEST W13	Fail		890918	2856					
L5-STE0403	STEX	ADAP TEST	SUCC		890918	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0404	STEX	AFCS P2 68	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0405	STEX	AFCS P2 70	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG #	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0406	STEX	AFCS P2 71	SUCC		890919	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0407	STEX	SELF TEST	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0408	STEX	ADAP TEST	Fail		890918	2856					
L5-STE0409	STEX	ADAP TEST	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0410	STEX	CAB EL SYS	FAIL	Detected Backup Battery Problem - Faulted EXT BATT A	890920	2856					
L5-STE0411	STEX	AFCS SYS TEST	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0412	STEX	CAB ELP2 26	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0413	STEX	CAB ELP2 32	FAIL	Faulted wrong LRU. Also detected extra problem	890920	2856					
L5-STE0414	STEX	CAB ELP2 32	FAIL	Detected extra Problem	890920	2856					
L5-STE0415	STEX	CAB ELP2 33	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0416	STEX	CAB EL SYS	NO TEST	Test Stopped - Operator turned off DCU power before DCU finished power up - power stayed on	890919	2856					
L5-STE0417	STEX	CAB ELP2 36	FAIL	Detected extra Problem	890920	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0418	STEX	CAB ELP2 36	FAIL	Detected extra Problem	890920	2856					
L5-STE0419	STEX	CAB EL SYS	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0420	STEX	CAB ELP2 38	CREW PROC ERR		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0421	STEX	CAB ELP2 38	CREW PROC ERR		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0422	STEX	CAB ELP2 38	CREW PROC ERR		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0423	STEX	CAB ELP2 38	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0424	STEX	CAB ELP2 42	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0425	STEX	CAB ELP2 37	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0426	STEX	CAB ELP2 43	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0427	STEX	CAB ELP2 53	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0428	STEX	CAB ELP2 54	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0429	STEX	Self Test	Fail	Faulted CX804 Cable — was bent during test	890921	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0430	STEX	SELF TEST	SUCC		890921	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0431	STEX	ADAP TEST	SUCC		890920	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0432	STEX	CAB EL SYS	Fail	Faulted ALT or VREG	890921	2856					
L5-STE0433	STEX	AFCS SYS TEST	SUCC		890921	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0434	STEX	ADAP TEST	NO TEST		890831	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0435	STEX	Self Test	Fail	Faulted CX804	890924	2856					
L5-STE0436	STEX	Self Test	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0437	STEX	Adap Test	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0438	STEX	CAB EL SYS	FAIL	Detected Backup Battery Problem - Faulted EXT BATT A	890924	2856					
L5-STE0439	STEX	Cab EI 84	Fail	Operator Error. Also rec'd Charging Sys alert message	890924	2856					
L5-STE0440	STEX	Cab EI 84	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0441	STEX	Cab EI 88	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0442	STEX	Cob EI 93	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0443	STEX	Cob EI 34	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0444	STEX	AFCS Sys Test	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0445	STEX	AFCS P2 19	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0446	STEX	AFCS P2 13	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0447	STEX	AFCS P2 14	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0448	STEX	AFCS P2 30	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0449	STEX	AFCS P2 32	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0450	STEX	AFCS P2 31	Succ		890924	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0451	STEX	Cob EI 61	Succ	Rec'd Charging Sys alert message	890921	2856					
L5-STE0452	STEX	Self Test	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0453	STEX	Adap Test	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0454	STEX	Cab EI Sys	Unre	Faulted PCU for CB Problem & had Backup Batt Supp problem	890922	2856					
L5-STE0455	STEX	Cab EI Sys	Unre	Double entry – Same incident as 454	890922	2856					
L5-STE0456	STEX	Cab EI Sys	Fail	Faulted PCU for CB Problem & Ext Batt A	890922	2856					
L5-STE0457	STEX	Cab EI Sys	Unre	Backup Batt Supp problem	890922	2856					
L5-STE0458	STEX	Cab EI 61	Crew Proc Err		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0459	STEX	Cab EI 61	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0460	STEX	Cab EI 64	Succ		890921	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0461	STEX	Cab EI 66	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0462	STEX	Cab EI 67	Succ		890922	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0463	STEX	ICE	No Test	STE-ICE Baseline tests	890925	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0464	STEX	ICE	Fail	Alt. field Voltage	890926	2856					
L5-STE0465	STEX	ICE	No Test	STE-ICE Baseline tests	890925	2856	N/A	N/A	N/A	N/A	N/A

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0466	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890926	2856					
L5-STE0467	STEX	ICE	Fail	Alt. field Voltage	890926	2856					
L5-STE0468	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890926	2856					
L5-STE0469	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890926	2856					
L5-STE0470	STEX	ICE	Fail	Alt. field Voltage	890927	2856					
L5-STE0471	STEX	N/A	No Test	Andy replaced A1 board in s/n 5	890917	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0472	STEX	ICE	No Test	STE-ICE Baseline tests	890928	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0473	STEX	ICE	No Test	STE-ICE Baseline tests	890927	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0474	STEX	N/A	No Test	Broken pin CA on DCA CX150	890927	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0475	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890927	2856					
L5-STE0476	STEX	ICE	Fail	Fuel supply Press - Broken pin in CX150	890927	2856					
L5-STE0477	STEX	ICE	Fail	Alt. field Voltage	890927	2856					

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG #	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0478	STEX	N/A	Non Proc Err	Troubleshot W102 w TM 314-20-1	890928	2856					
L5-STE0479	STEX	ICE	Fail	Alt. field Voltage	890928	2856					
L5-STE0480	STEX	ICE	Fail	Fuel supply Press – Broken pin in CX150	890928	2856					
L5-STE0481	STEX	ICE	Fail	Fuel supply Press – Broken pin in CX150	890928	2856					
L5-STE0482	STEX	ICE	Fail	Fuel supply Press – Broken pin in CX150	890928	2856					
L5-STE0483	STEX	ICE	No Test	STE-ICE Baseline tests	890929	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0484	STEX	ICE	Fail	Fuel supply Press – Broken pin in CX150	890929	2856					
L5-STE0485	STEX	ICE	Fail	Fuel filt diff press	890929	2856					
L5-STE0486	STEX	ICE	Fail	Starter Positive term voltage Read 0.0 PSI???	890929	2856					
L5-STE0487	STEX	ICE	Fail	Alt. field Voltage	890929	2856					
L5-STE0507	STE	N/A	No Test	PIN AC broken in CX150	890927	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0529	STEX	ICE	Succ	STE-ICE Baseline tests	891010	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0530	STEX	ICE	No Test	Alt. field Voltage	891010	2856					
L5-STE0531	STEX	ICE	No Test	Starter Positive term voltage	891010	2856					
L5-STE0532	STEX	ICE	No Test	Fuel supply Press – Broken pin in CX150	891010	2856					
L5-STE0533	STEX	ICE	Succ	STE-ICE Baseline tests	891010	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0560	STEX	Self Test	Succ		891005	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0561	STEX	ICE	Succ	Static Battery Voltage	891005	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0570	STEX	ICE	No Test	Static Battery Voltage test passed	891006	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0571	STEX	Self Test	No Test	No Faults Found	891011	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0572	STEX	ICE	Succ	STE-ICE Baseline tests	891011	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0573	STEX	ICE	No Test	Static Battery Voltage test passed	891001	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0574	STEX	Cabl Test	Succ	No Faults Found	891011	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0575	STEX	ICE	No Test	Fuel supply Press – Broken pin in CX150	891011	2856					

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0576	STEX	ICE	No Test	Alt. field Voltage	891011	2856					
L5-STE0577	STEX	Self Test	No Test	No Faults Found	891011	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0578	STEX	Self Test	Succ	No Faults Found	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0579	STEX	Self Test	Succ	No Faults Found	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0580	STEX	ICE	Succ	STE-ICE Baseline tests	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0581	STEX	Self Test	No Test	No Faults Found - Possible power surge or dropout occurred in vehicle	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0582	STEX	Cabl Test	No Test	No Faults Found	891012	2856	MDL 900215	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0583	STEX	ICE	No Test	Fuel supply Press - Broken pin in CX150	891012	2856					
L5-STE0584	STEX	ICE	No Test	Alt. field Voltage	891012	2856					
L5-STE0585	STEX	Self Test	Succ	No Faults Found	891012	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0586	STEX	ICE	Succ	STE-ICE Baseline tests	891013	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0587	STEX	Cabl Test	No Test	No Faults Found	891013	2856	MDL 900215	900215	900212	NO ACTION	None. No apparent reason for score

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH. #	ENG#	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0588	STEX	Self Test	Succ	No Faults Found	891013	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0589	STEX	Self Test	Succ	No Faults Found	891016	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0590	STEX	ICE	Succ	STE-ICE Baseline tests	891016	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0591	STEX	Cabl Test	Succ	No Faults Found	891016	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0592	STEX	Self Test	Succ	No Faults Found	891017	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0593	STEX	ICE	Succ	STE-ICE Baseline tests	891017	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0594	STEX	Cabl Test	Succ	No Faults Found	891017	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0595	STEX	ICE	Succ	STE-ICE Baseline tests	891018	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0596	STEX	Cabl Test	Succ	No Faults Found	891018	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0597	STEX	ICE	Fail	Setcom locked up - would not clear	891018	2856					
L5-STE0598	STEX	ICE	Fail	A E/R message appeared on the Setcom after entering the test mode	891022	2856					
L5-STE0601	STEX	ICE	Fail	Setcom locked up - would not clear	891022	2856					

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0602	STEX	Self & Cabl	No Test	Various Tests No Faults Found	891022	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0603	STEX	ICE	No Test	Various Tests No Faults Found	891022	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0604	STEX	Self & Cabl	Succ	Various Tests No Faults Found	891020	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0605	STEX	ICE	Succ	Automotive Tests No Faults Found	891020	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0606	STEX	Self & Cabl	No Test	Various Tests No Faults Found	891023	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0607	STEX	MCS SYS Test	No Test	No Faults Found	891023	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0608	STEX	MCS 10	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0609	STEX	MCS 15	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0610	STEX	MCS 18	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0611	STEX	MCS 20	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0612	STEX	MCS 23	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0613	STEX	MCS 25	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0614	STEX	MCS 35	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0615	STEX	MCS 37	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0616	STEX	MCS 39	Succ		891023	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0617	STEX	MCS 42	No Test	Test worked correctly	891023	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0618	STEX	Self & Cobl	No Test	Various Tests No Faults Found	891024	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0619	STEX	ICE	No Test	Various Tests No Faults Found	891024	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0620	STEX	ICE	No Test	Various Tests No Faults Found	891024	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0621	STEX	Self & Cobl	No Test	Various Tests No Faults Found	891025	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0622	STEX	ICE	No Test	Various Tests No Faults Found	891025	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0623	STEX	ICE	No Test	Various Tests No Faults Found	891025	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0624	STEX	Self & Cobl	No Test	Various Tests No Faults Found	891026	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0625	STEX	ICE	No Test	Various Tests No Faults Found	891026	2856	N/A	N/A	N/A	N/A	N/A

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HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0626	STEX	Self & Cabl	Succ	Various Tests No Faults Found	891027	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0627	STEX	ICE	Succ	Various Tests No Faults Found	891027	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0628	STEX	ICE	No Test	Various Tests No Faults Found	891029	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0629	STEX	Self & Cabl	No Test	Various Tests No Faults Found	891029	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0630	STEX	ICE	No Test	Various Tests No Faults Found	891029	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0633	STEX	ICE	No Test	Various Tests No Faults Found	891030	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0663	STEX	Cab E1 6	No Test	Ran DBA Field workaround proc.	891107	2856					
L5-STE0664	STEX	Cab E1 64	Succ		891107	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0665	STEX	Cab E1 64	Unre	Wrong Fault Message	891107	2856					
L5-STE0666	STEX	Cab E1 64	Unre	Wrong Fault Message	891107	2856					
L5-STE0667	STEX	Self & Cabl	No Test	Various Tests No Faults Found	891108	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0668	STEX	ICE	No Test	Test mode 67 No Faults Found	891108	2856	MDL	900215	900212	NO ACTION	None. No apparent reason for score

HIP TEST INCIDENT REPORT (TIR) LOG (Continued)

TIR #	UNIT	VTR#	SCOR	DESCRIPTION	INCIDENT DATE	VEH.#	ENG	SUSP.	ANALYSIS REPORT	STATUS	CORRECTIVE ACTION
L5-STE0669	STEX	AFCS P2 65	Succ		891108	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0670	STEX	Self Test	No Test	No Faults Found	891109	2856 MDL		900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0671	STEX	ICE	No Test	Various Tests No Faults Found	891109	2856	N/A	N/A	N/A	N/A	N/A
L5-STE0672	STEX	Self Test	No Test	Various Tests No Faults Found	891113	2856 MDL		900215	900212	NO	None. No apparent reason
L5-STE0673	STEX	ICE	No Test	Test mode 67 No Faults Found	891113	2856 MDL		900215	900212	NO ACTION	None. No apparent reason for score
L5-STE0674	STEX	Self Test	No Test	No Faults Found - Note: PCU was removed from the vehicle	891113	2856	N/A	N/A	N/A	N/A ACTION	N/A for score

APPENDIX C

COMMON STE-X SOFTWARE DOCUMENTATION
REVIEW MEETING MINUTES

GE Aerospace

To: Attendees

Automated Systems Department
General Electric Company
P.O. Box 588, Burlington, MA 01803

From: T.S. Dwan

Dial Comm: 8*326-3820

Date: 14 August 1990

ATS-TSD-90-17A

Re: 8 AUGUST 1990 COMMON STE-X SOFTWARE DOCUMENTATION REVIEW MEETING MINUTES

Reference: TACOM Contract No. DAAE07-88-C-R133

Enclosures: (a) Attendance list of the subject meeting
             (b) Agenda for the subject meeting

The subject meeting, attended by those individuals listed in enclosure (a), followed the enclosure (b) agenda. Action items resulting from the meeting were as follows:

1) GE to supply LTV with lines of code count by COB 8-13-90.

2) GE to send LTV version 8 of the STE-X operating system on magnetic media once it is released. Post meeting information that the availability of version 8 will be delayed, may require sending version 7 in its place.

3) GE to retain the hard copy of common STE-X software specifications reviewed at the meeting pending future LTV direction.

4) LTV to submit RFP to GE for a mark-up of the existing common STE-X software specifications deleting all non-MMTD applicable material.

5) LTV plans to take lead in establishing requirements for the common STE-X source code.

6) GE to supply TACOM with hard copy and LTV with magnetic tape of the "Interface Specification for STE-X System Software" last revised June 10, 1987.

If there are any questions concerning the above minutes, please contact the undersigned at (617) 229-3820.

Thomas S. Dwan
Program Manager

krr

Attachments

cc: G. Martin

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ATTENDANCE LIST
COMMON STE-X SOFTWARE DOCUMENTATION
REVIEW MEETING
(8/8/90)

NAME	ORGANIZATION	PHONE #
Steve Adams	MICOM, SFAE-FS-AT-C	205-842-0683
Mike Addams	MICOM	205-876-7105
Don Bartlett	GE ASD, PMO	617-229-3389
Mike Baughn	MICOM, SFAE-FS-AT-E	205-876-2460
Brac Beuke	LTV, Config. Mgmt.	214-266-9330
Randy Cann	MICOM, SED/TRW	205-830-3462
J.D. Chaney	LTV, Prog. Office	214-266-1538
Thomas S.Dwan	GE ASD, PMO	617-229-3820
Earl Evans	LTV, Eng.	214-266-1467
William A. Fentom	LTE, Eng.	214-266-9654
Mike Hennessey	TACOM	313-574-5414
Steven Heyl	GE ASD, Eng.	617-229-3887
Wsewolod Hnatczuk	TACOM	313-229-5840
Larry Malone	MICOM, ANSMI-RD-SE-TD-CM	205-876-6166
Ken St. Pierre	GE ASD, Eng.	617-229-3563
Matthew Vega	MICOM, SFAE-FS-AT-E	205-876-1575
Raoul Weyler	GE ASD, CM & DM	617-229-5203
Woodrow A. Williams	Army TACMS, SFAE-FS-AT-T	205-876-5666
Jim Wright	LTV, Software	214-266-0249

<u>AGENDA</u>
(8 AUGUST 1990)

o   INTRODUCTION   8:00 AM

o   COMMON STE-X SOFTWARE SPECIFICATIONS   8:15 AM

    -    SPEC HIERARCHY OVERVIEW
    -    DOCUMENTATION REVIEW
    -    DISCUSSION OF FUTURE DIRECTION

o   LUNCH   12:00

o   COMMON STE-X SOFTWARE   1:00 PM

    -    FAMILY TREE OVERVIEW
    -    PROGRAM (S/W) INDEX/FILE LISTING REVIEW
    -    DISCUSSION OF FUTURE DIRECTION

o   CLOSING REMARKS   4:00 PM

APPENDIX D

COMMON

HIP ANALYZER SET

AND

ARMY TACTICAL MISSILE SYSTEM (ATACMS)
MISSILE MONITOR TEST DEVICE (MMTD)
(AN/TSM-193)

PARTS

The highlighted part numbers on the enclosed Enginering Data List (Program MC0301-V02Q) dated 08/03/90 are common to the HIP Analyzer Set (P/N 12361300) and the Army TACMS MMTD (P/N 13289700).

PREFIX   DRAWING NUMBER   SIZE DW-S REV DATE-ISS   ECN #SH RESP DESCRIPTION   L TYPE   OUTSTANDING ECNS

DEFINITION OF EDL COLUMN HEADINGS
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PREFIX   : 2 DIGIT ALPHA ACRONYM FOR TYPE OF DOCUMENT/DRAWING

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DW   : "O" OR "W" INDICATES APPROVED DEVIATION OR WAIVER

: INFORMATION FOR DOCUMENTATION CONTROL AND REPRODUCTION

S   : SECURITY CLASS PER MIL-STD-804

REV   : LATEST REVISION LETTER INCORPORATED INTO DOCUMENT/DRAWING

DATE-ISS   : THE DATE THAT THE ASSOCIATED REVISION LETTER WAS RELEASED FOR USE

ECN   : ENGINEERING-CHANGE-NOTICE NUMBER OR RELEASED INFORMATION FOR LATEST REVISION LETTER INCORPORATED INTO
                      DOCUMENT/DRAWING

#SH   : THE NUMBER OF SHEETS THAT MAKE UP THE DOCUMENT/DRAWING

RESP   : RESPONSIBLE PROGRAM CODE (TO IDENTIFY DOCUMENT/DRAWING OWNER)

DESCRIPTION   : TITLE OF DOCUMENT/DRAWING

L   : LEVEL OF CHANGE CONTROL PER RCA, BURLINGTON O. I.2913

TYPE   : DOCUMENT/DRAWING TYPE PER MIL-STD-482

OUTSTANDING ECN'S   : ALL ECN'S AUTHORIZED FOR USE BUT NOT INCORPORATED INTO THE DOCUMENT/DRAWING

D-4

PREFIX	DRAWING NUMBER	SIZE	DW*S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12314769	D	N	A	09/11/81	REL-A	1	1088	BRACKET,MEMORY	2	021	
PL	12314769	A	N	A	09/11/81	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314770	E	N	A	04/08/82	REL-A	1	1088	CIRCUIT CARD ASSEMBLY CPU	2	021	
PL	12314770	A	N	A	04/08/82	REL-A	5	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314771	E	N	A	04/08/82	REL-A	1	1088	STE-X COMPUTER BOARD	2	034	
	12314772	E	N	A	01/27/82	REL-A	10	1088	PWB-COMPUTER	2	265	
	12314773	E	N	L	06/15/83	J35568	1	1088	TWO BUBBLE MEMORY CIRCUIT CARD ASSEMBLY	2	021	
PL	12314773	A	N	L	06/15/83	J35568	3	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314774	D	N	E	06/15/83	J35569	2	1088	SCH-TWO BUBBLE MEMORY	2	034	
	12314775	E	N	D	03/08/83	J33859	2	1088	PWB-TWO BUBBLE MEMORY	2	265	
	12314776	E	N	F	04/01/83	J33878	1	1088	THREE BUBBLE MEMORY CIRCUIT CARD ASSEMBLY	2	021	
PL	12314776	A	N	F	04/01/83	J33878	3	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314777	E	N	B	11/18/92	J26946	2	2088	SCH-3 BUBBLE MEMORY BOARD INACTIVE	1	034	(C-J35551)
	12314778	E	N	C	03/08/83	J33859	2	1088	PWB-THREE BUBBLE MEMORY	2	265	
	12314779	E	N	J	06/21/83	J35578	1	1088	ONE BUBBLE MEMORY CIRCUIT CARD	2	021	
PL	12314779	A	N	J	06/21/83	J35578	4	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314780	D	N	D	06/21/83	J35576	1	1088	SCH-1MBIT BUBBLE MEMORY BOARD GENERAL PURPOSE	2	034	
	12314781	E	N	D	03/28/83	J33875	9	1088	PWB-1 BUBBLE MEMORY	2	265	
	12314785	E	N	F	08/10/83	J37218	1	1088	STE/ICE FUNCTION CIRCUIT CARD ASSEMBLY	2	021	
PL	12314785	A	N	F	04/10/83	J37218	5	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314786	E	N	B	11/18/82	J26950	4	1088	SCH-STE/ICE FUNCTION	2	034	
	12314787	E	N	C	03/08/83	J33859	2	1088	PWB-STE/ICE FUNCTION	2	265	
	12314788	E	N	F	08/10/83	J37219	1	1088	SPECIAL FUNCTION CIRCUIT CARD ASSEMBLY	2	021	
PL	12314788	A	N	F	08/10/83	J37219	6	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314789	E	N	B	11/18/82	J26952	2	1088	SCH-SPECIAL FUNCTION INACTIVE	1	034	(C-J37220)
	12314790	E	N	C	03/08/83	J33859	2	1088	PWB-SPECIAL FUNCTION	2	265	
	12314791	E	N	B	01/05/83	J26989	1	1088	INPUT MUX CIRCUIT CARD ASSEMBLY	2	021	
PL	12314791	A	N	B	01/05/83	J26989	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314792	D	N	B	11/18/82	J26954	2	1088	SCH-INPUT MUX	2	034	
	12314793	E	N	C	03/08/83	J33859	2	1088	PWB-INPUT MUX	2	265	
	12314794	E	N	C	08/10/83	J37221	1	1088	IRU DRIVE CIRCUIT CARD ASSEMBLY	2	021	
PL	12314794	A	N	C	08/10/83	J37221	4	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314795	E	N	C	08/10/83	J37222	2	1088	SCH-IRU DRIVE	2	034	
	12314796	E	N	C	03/08/83	J33859	2	1088	PWB-IRU DRIVE	2	265	
	12314797	E	N	G	06/15/83	J35565	2	1088	TRANSIT CASE	2	044	
	12314798	D	N	A	06/17/82	REL-A	1	1088	BRACKET ASSEMBLY	2	021	
	12314799	D	N	A	06/17/82	REL-A	1	1088	BASE PLATE	2	021	
	12314800	E	N	U	08/18/83	J37230	4	1088	TEST UNIT	2	021	
PL	12314800	A	N	U	08/18/83	J37230	5	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	

PREFIX	DRAWING NUMBER	SIZE	DW#S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12314805	E	N	B	11/18/82	J26957	3	108E	PWB-BACKPLANE,INTERFACE MODULE	2	265	
	12314808	E	N	D	06/02/83	J35563	2	1088	PWB-BACKPLANE,MAINFRAME	2	265	
	12314809	C	N		02/19/85	44957		1088	LABEL,CAUTION	2	029	
	12314811	C	N	B	12/10/82	J26972	5	1088	IC-ONE MEGABIT BUBBLE MEMORY	2	044	
	12314812	C	N	B	12/10/82	J26973	7	1088	IC-BUBBLE MEMORY CONTROLLER	2	044	
	12314813	C	N	B	12/10/82	J26974	4	1088	IC-CURRENT PULSE GENERATOR	2	044	
	12314814	C	N	E	03/29/90	J74619	5	1088	IC-SENSE AMPLIFIER	2	044	
	12314815	C	N	E	04/05/90	J76622	3	1088	IC-COIL PRE-DRIVER	2	044	
	12314816	C	N	D	02/27/89	J68983	9	1088	IC-8-BIT MICROCOMPUTER	2	044	
	12314817	C	N	C	09/18/86	J54294	3	108R	IC-QUAD DRIVER,TRANSISTORS	2	044	
	12314818	C	N	A	09/23/91	REL-A	2	1088	RESISTOR NETWORK	2	044	
	12314819	C	N	A	11/06/81	REL-A	4	1088	IC-HIGH SPEED STATIC CMOS RAM (2048 WORD X 8 BIT)	2	044	
	12314820	C	N	B	01/26/83	J33804	3	1088	IC-OCTAL BUS TRANSCEIVERS	2	044	
	12314821	C	N	B	01/26/83	J33804	4	1088	IC-CMOS TRANSPARENT LATCH AND FLIP FLOP	2	044	
	12314822	C	N	C	09/25/86	J54298	3	1088	IC-OCTAL DECODER/DEMULTIPLEXER	2	044	
	12314823	C	N	C	08/09/83	J37214	3	1088	IC-CMOS,3 STAGE OCTAL BUFFER LINE DRIVER	2	044	
	12314824	C	N	A	11/09/82	REL-A	2	1088	RESISTOR,NETWORK	2	044	
	12314825	C	N	B	09/21/84	J43138	1	1088	CAPACITOR,TANTALUM	2	044	
	12314826	C	N	A	10/01/81	REL-A	1	1088	CRYSTAL,4.0 MHZ	2	044	
	12314827	C	N	B	06/02/88	J66501	2	1088	TRANSISTOR,FET/MOS N CHANNEL	2	044	
	12314828	C	N	B	09/18/86	J54294	2	1088	OPERATIONAL AMPLIFIER, DUAL WIDE BANDWITH	2	044	
	12314829	C	N	A	09/23/81	REL-A	1	1088	CRYSTAL 12.0 MHZ	2	044	
	12314830	C	N	A	10/27/81	REL-A	1	1088	SOCKET,BUBBLE MEMORY	2	044	
	12314831	C	N	A	10/13/81	REL-A	1	1088	IC-REGULATOR,POWER ADJUSTABLE (5 AMP)	2	044	
	12314832	C	N	B	09/30/81	J26900	1	1088	NUT,CAPTIVE	2	044	
	12314833	C	N	B	11/03/82	J26938	5	1088	POWER MODULE INACTIVE	1	044	(C-J33890)
	12314834	C	N	A	11/20/81	REL-A	3	1088	IC-CLOCK GENERATOR/DRIVEN	2	044	
	12314835	C	N	A	11/13/81	REL-A	5	1088	IC-8 BIT MOS MICROPROCESSOR	2	044	
	12314836	C	N	B	12/04/89	J67274		1088	IC-QUAD 2-INPUT MULTIPLEXER	2	044	
	12314838	C	N	C	03/02/88	J61184	2	1088	IC-OCTAL BUFFER/LINE RECEIVER	2	044	
	12314839	C	N	A	11/16/82	REL-A	2	1088	IC-HEX INVERTER	2	044	
	12314840	C	N	B	08/10/89	J67255	3	1088	IC-DUAL D-TYPE POSITIVE EDGE TRIGGERED FLIP FLOPS	2	044	
	12314841	C	N	A	12/21/82	REL-A	3	1088	IC-QUAD 2-INPUT AND-GATES	2	044	
	12314842	C	N	A	11/17/81	REL-A	3	1088	IC-PROGRAMMABLE INTERRUPT CONTROLLER	2	044	
	12314843	C	N	C	09/28/86	J54294	2	1088	IC-HEX INVERTER	2	044	
	12314844	C	N	-	??????		7	1088	IC-64 K-BIT DYNAMIC RAM	5	044	
	12314844	C	N	A	12/14/82	J67262	7	1088	IC-64 K-BIT DYNAMIC RAM	2	044	
	12314845	C	N	C	08/29/89	J61195	3	1088	IC-QUAD 2-INPUT MULTIPLEXER	2	044	
	12314846	C	N	C	04/08/88	J61195	3	1088	IC-DUAL 4 STAGE COUNTER	2	044	
	12314847	C	N	A	11/03/82	REL-A	1	1088	DELAY LINE	2	044	
	12314948	C	N	A	12/17/82	REL-A	3	1088	IC-QUAD 2-INPUT NOR BUFFER	2	044	

PREFIX	DRAWING NUMBER	SIZE	DWG C/N	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12314849	C	N	B	09/18/86	J54294	1	1088	IC-VOLTAGE REGULATOR	2	044	
	12314850	C	N	A	12/21/82	REL-A	3	1088	IC-QUAD 2-INPUT NAND BUFFERS	2	044	
	12314851	C	N	A	12/21/82	REL-A	3	1088	IC-HEX INVERTER	2	044	
	12314852	C	N	A	12/21/82	REL-A	3	1088	IC-QUAD 2-INPUT OR GATES	2	044	
	12314853	C	N	B	09/18/86	J54294	2	1088	IC-QUAD 2-INPUT OR GATE	2	044	
	12314854	C	N	A	12/24/81	REL-A	1	1088	CRYSTAL 15MHZ	2	044	
	12314855	C	N	C	02/08/83	J33832	1	1088	CRYSTAL,6.144 MHZ	2	025	
	12314856	C	N	C	08/09/83	J37216	1	1088	IC-CMOS DUAL D FLIP FLOP	2	044	
	12314857	C	N	A	11/09/82	REL-A	1	1088	DIODE,CURRENT REGULATOR	2	044	
	12314858	C	N	A	11/09/82	REL-A	2	1088	IC-TRIPLE 3 INPUT NOR GATE	2	044	
	12314859	C	N	C	08/09/83	J37216	2	1088	IC-CMOS HEX INVERTER	2	044	
	12314860	C	N	B	04/12/83	J35502	3	1089	HYBRID,OPTICALLY COUPLED MULTIPLEXER	2	044	
	12314861	C	N	B	09/18/86	J54294	2	1088	IC-SAMPLE/HOLD AMPLIFIER	2	044	
	12314862	C	N	C	09/18/86	J54294	4	1088	IC-12-BIT A/D CONVERTER	2	044	
	12314863	C	N	A	12/02/82	REL-A	3	1088	IC-PROGRAMMABLE AMPLIFIER	2	044	
	12314864	C	N	A	10/27/81	REL-A	2	1098	RELAY,2-POLE AC/DC	2	044	
	12314865	C	N	A	11/16/82	REL-A	2	1088	IC-MULTIPLIER	2	044	
	12314866	C	N	B	09/18/86	J54294	4	1088	IC-ANALOG MULTIPLEXER	2	044	
	12314867	C	N	C	08/09/83	J37216	3	1088	IC-CMOS QUAD 2 INPUT AND GATE	2	044	
	12314868	C	N	B	09/18/86	J54294	4	1088	IC-8 BIT ADDRESSABLE LATCH	2	044	
	12314869	C	N	C	08/09/83	J37212	3	1088	IC-OCTAL DECODER/MULTIPLEXER	2	044	
	12314870	C	N	A	12/21/82	REL-A	2	1088	IC- +10V REFERENCE	2	044	
	12314871	C	N	B	01/26/83	J33809	2	1088	IC-OPERATIONAL AMPLIFIER	2	044	
	12314872	C	N	B	09/18/86	J54294	1	1088	DIODE,LOW LEAKAGE SEMICONDUCTOR DEVICE	2	044	
	12314873	C	N	A	11/09/82	J54294	1	1088	TRANSISTOR,POWER MOSFET	2	044	
	12314874	C	N	B	10/03/86	J57506	3	1088	IC-QUAD 2-INPUT NAND SCHMITT TRIGGER	2	044	
	12314875	C	N	B	09/18/86	J54294	4	1088	IC-COUNTER,4-BIT DECADE	2	044	
	12314876	C	N	C	08/09/83	J37216	3	1088	IC-CMOS QUAD 2 INPUT NAND GATE	2	044	
	12314877	C	N	D	09/18/86	J54294	3	1088	IC-CMOS QUAD 2 INPUT NOR GATE	2	044	
	12314878	C	N	A	12/01/82	REL-A		1088	IC-DEFAULT	2	044	
	12314879	C	N	C	08/09/83	J37216	3	1088	IC-CMOS QUAD 2 INPUT OR GATE	2	044	
	12314880	C	N	C	08/09/83	J37216	3	1088	IC-CMOS QUAD 2 INPUT LATCH DRIVER	2	044	
	12314881	C	N	B	10/03/86	J57506	3	1088	IC-8-BIT LATCH DRIVER	2	044	
	12314882	C	N	B	09/25/86	J54299	4	1088	IC-TRIPLE 3-INPUT OR GATE	2	044	
	12314883	C	N	B	09/25/86	J54299	4	1088	IC-BINARY COUNTER/DIVIDER	2	044	
	12314884	C	N	F	12/04/82	J67210	4	1088	IC-PHASE-LOCKED LOOP	2	044	
	12314885	C	N	A	12/24/81	REL-A	1	1088	CRYSTAL 1.31072MHZ	2	044	
	12314886	C	N	C	08/22/89	J67258	3	1088	IC-D/A CONVERTER	2	044	
	12314887	C	N	B	09/25/86	J54299	3	1088	IC-AMPLIFIER/DUAL OPERATIONAL	2	044	
	12314888	C	N	A	11/18/82	REL-A	2	1088	IC-OPERATIONAL AMPLIFIER	2	044	
	12314889	C	N	B	09/25/86	J54299	3	1088	IC-8-CHANNEL DATA SELECTOR	2	044	
	12314890	C	N	C	08/09/83	J37215	3	1088	IC-OCTAL-D-FLIP-FLOP	2	044	
	12314891	C	N	C	08/09/83	J37213	3	1088	IC-OCTAL-D-LATCH	2	044	
	12314892	C	N	B	09/25/86	J54299	3	1088	IC-DUAL 4-INPUT NOR GATE	2	044	
	12314893	C	N	A	12/14/82	REL-A	4	1088	IC-1024 BIT (256 X 4) RAM	2	044	
	12314894	C	N	B	09/18/86	J54294	1	1088	IC HEATSINK	2	044	

PREFIX	DRAWING NUMBER	SIZE	DW=S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12314895	C	N	A	10/27/81	REL-A	2	1088	RELAY,2-POLE AC/DC	2	044	
	12314897	C	N	A	11/24/81	REL-A	5	1088	IC-ERASABLE 4K X 8 PROM	2	044	
	12314898	C	N	A	02/10/82	REL-A	1	1088	SCREW,CAPTIVE	2	044	
	12314899	E	N	B	09/18/86	J54294	1	1088	SOCKET,CONTACT	2	025	
	12314900	C	N	B	06/15/83	J35566	2	1088	CONNECTOR,ELECTRICAL PRINTED CIRCUIT	2	025	
	12314901	C	N	A	04/08/82	REL-A	2	1088	CONNECTOR	2	025	
	12314902	C	N	A	11/03/82	REL-A	1	1088	BUSHING,LOCKING	2	025	
	12314903	C	N	A	11/18/82	REL-A	1	1098	LOCKING SCREW	2	025	
	12314904	C	N	A	12/22/82	REL-A	1	1088	KEY,LOCATING	2	025	
	12314905	C	N	A	02/25/92	REL-A	1	1089	CONNECTOR,ELECTRICAL	2	025	
	12314907	C	N	A	05/04/92	REL-A	2	1088	CONNECTOR	2	025	
	12314908	C	N	C	03/01/84	J37275	1	1088	CONNECTOR	2	025	
	12314909	C	N	B	09/18/86	J54294	1	1088	DELAY LINE	2	044	
	12314910	E	N	N	02/13/84	J37270	2	1088	FINAL MUX	2	021	
PL	12314910	A	N	N	02/13/84	J37270	7	1088	CIRCUIT CARD ASSEMBLY FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314911	E	N	C	08/03/83	J37209	5	1088	SCH-FINAL MUX	2	034	
	12314912	E	N	C	03/08/83	J33859	2	1088	PWB-FINAL MUX	2	265	
	12314913	D	N	A	02/08/82	REL-A	2	1088	PLATE,HEAT SINK	2	029	
	12314917	E	N	D	08/10/83	J37224	1	1088	COMPUTER NO.2	2	021	
PL	12314917	A	N	D	08/10/83	J37224	5	1088	CIRCUIT CARD ASSEMBLY FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314918	E	N	B	08/10/83	J37225	3	1088	SCH-COMPUTER NO.2	2	034	
	12314919	E	N	C	06/01/83	J35558	2	1088	PWB-COMPUTER NO.2	2	265	
	12314920	A	N	B	02/18/83	J33839	1	1088	MAGNETIC BUBBLE/PULSE GENERATOR MATCHED SET	2	276	
PL	12314921	C	N	C	06/02/83	J35562	1	1088	IC-DRAM ASSEMBLY	2	021	
	12314921	A	N	C	06/02/83	J35562	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314925	C	N	A	05/04/82	REL-A	2	1088	CONNECTOR,ONE BUBBLE MEMORY	2	025	
	12314926	C	N	A	04/08/82	REL-A	1	1088	SOCKET CONTACT ASSEMBLY	2	025	
	12314929	C	N	A	12/02/82	REL-A	2	1088	IC-QUAD 2-INPUT/NOR GATE	2	044	
	12314930	C	N	A	12/17/82	REL-A	1	1088	RETAINER,SLIDING LOCK	2	025	
	12314931	C	N	A	12/17/82	REL-A	5	1088	POST,LOCK/SLIDING	2	025	
	12314938	C	N	A	12/09/82	REL-A	1	1088	PAD,MOUNTING	2	025	
	12314939	C	N	C	11/07/84	J43185	1	1088	SHIELDING GASKET,EMI/RFI	2	025	
	12314940	C	N	B	06/24/85	J47079	1	1088	GASKET,EMI/RFI	2	025	
	12314941	C	N	A	08/18/82	REL-A	5	1088	IC-UV ERASABLE 8K X 8 PROM	2	044	
	12314942	C	N	G	06/06/90	J76636	3	1088	IC-HIGH VOLTAGE MULTIPLIER	2	044	
	12314943	C	N	A	01/27/83	REL-A	7	1088	IC-64K-BIT DYNAMIC RAM	2	044	
	12314944	C	N	B	10/03/83	J37234	2	1088	SINGLE INLINE PACKAGE,22 LEADS	2	025	
	12314945	C	N	F	03/01/85	J45328	5	1088	IC-128K(16K X 8)UV PROM	2	025	
	12314946	C	N	B	08/22/83	J37231	2	1088	CAPACITOR,CERAMIC CHIP	2	044	
	12314947	C	N	A	01/20/83	REL-A	3	1088	IC-RELAY DRIVER	2	044	
	12314948	C	N	B	04/01/83	J33881	1	1088	HEATER,BUBBLE MEMORY	2	044	

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	12314949	C		N	A	06/02/83	REL-A	2	1088	INTEGRATED CIRCUIT, OCTAL BUFFER/LINEDRIVER	2	044	
	12314950	C		N	A	06/06/83	REL-A	2	1088	IC-CMOS OCTAL D LATCH	2	044	
	~~12314951~~			~~N~~	~~B~~	~~09/18/86~~	~~J54295~~	~~6~~	~~1088~~	~~PROBE,CURRENT~~	2	025	
	12314952	E		N	E	11/23/82	J26959	2	1088	NEST ASSEMBLY,INTERFACE (BRAZED)	2	021	
PL	12314952	A		N	E	11/23/82	J26959	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314953	D		N	B	08/12/83	J37227	1	1088	BRACKET CONNECTOR MOUNTING	2	029	
	12314954	D		N	C	04/14/83	J33894	2	1088	PANEL,FRONT (INTERFACE MODULE)	2	021	
PL	12314954	A		N	C	04/14/83	J33894	1	1088	FOR MC ONLY-HARD COPY N/A	2	021	
	12314955	D		N	B	04/07/83	J33893	1	1088	FRONT PANEL-MARKING DETAIL	2	265	
	12314956	E		N	C	12/01/82	J26969	1	1088	SNUBBER,MAIN FRAME	2	029	
	12314957	D		N	A	02/10/82	REL-A	1	1088	BRACKET,CONNECTOR MOUNTING	2	029	
	12314958	D		N	A	02/22/82	REL-A	1	1088	COVER,BOTTOM	2	029	
	12314959	D		N	B	12/01/82	J26970	1	1088	GUIDE	2	029	
	12314960	E		N	G	07/18/83	J35597	2	1088	INTERFACE MODULE ASSEMBLY	2	021	
PL	12314960	A		N	G	07/18/83	J35597	3	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314961	E		N	F	11/23/82	J26960	2	1088	NEST ASSEMBLY,MAIN FRAME (BRAZED)	2	021	
PL	12314961	A		N	F	11/23/82	J26960	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314962	D		N	C	11/18/82	J26961	1	1088	COVER,TOP,INTERFACE	2	021	
PL	12314962	A		N	C	11/18/82	J26961	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314963	D		N	D	11/18/82	J26981	1	1088	EXTRACTOR (P.W. CARD)	2	029	
	12314964	E		N	B	11/18/82	J26962	1	1088	COVER,TOP,MAIN FRAME	2	021	
PL	12314964	A		N	B	11/18/82	J26962	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314965	D		N	A	02/22/82	REL-A	1	1088	COVER,BOTTOM	2	029	
~~PL~~	~~12314966~~	~~D~~		~~M~~	~~B~~	~~09/30/86~~	~~J57902~~	~~1~~	~~1088~~	~~HANDLE,GENERATOR MODULE~~	2	021	
~~PL~~	~~12314966~~	~~A~~		~~N~~	~~B~~	~~09/30/86~~	~~J57502~~	~~1~~	~~1088~~	~~FOR MC ONLY-HARD COPY N/A~~	2	PLA	
	12314967	D		N	A	02/22/82	REL-A	1	1088	HANDLE	2	021	
PL	12314968	A		N	A	02/10/82	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314968	C		N	A	02/10/82	REL-A	1	1088	PIN,GUIDE	2	029	
	12314969	U		N	C	04/20/83	J35512	1	1088	MEMORY MODULE ASSEMBLY	2	029	
PL	12314970	A		N	C	04/20/83	J35512	1	1088	FOR MC ONLY-HARD COPY N/A	2	021	
	12314971	E		N	E	06/15/83	J35571	2	1088	PANEL ASSEMBLY FRONT	2	021	
PL	12314971	A		H	E	06/15/83	J35571	1	1088	FOR MC ONLY-HARD COPY N/A	2	021	
	12314972	E		N	B	10/03/83	J37233	2	1088	LIQUID CRYSTAL DISPLAY 2 X 20 CHARACTERS	2	025	
	12314973	E		N	B	03/09/82	J26910	1	1088	COVER,I.R.U.	2	021	
PL	12314973	A		N	B	03/09/82	J26909	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314974	E		N	F	06/30/83	J35570	1	1088	GUIDE ASSEMBLY MEMORY MODULE	2	021	
PL	12314974	E		N	F	06/30/83	J35570	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314975	E		N	A	03/17/92	REL-A	2	1088	SUPPORT ASSEMBLY MEMORY MODULE	2	021	
PL	12314975	A		N	A	09/22/82	REL-A	2	1088	FOR MC ONLY-HARD COPY N/A	2	021	
	12314976	E	DH		B	05/01/83	J35534	1	1088	SET COMMUNICATOR ASSEMBLY	2	021	
PL	12314976	A		N	B	05/01/83	J35534	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
PL	~~12314977~~	~~D~~		~~AC~~	~~06/30/89~~	~~J72324~~		~~2~~	~~1088~~	~~CABLE ASSEMBLY,(CX50)~~	2	277	
	~~12314977~~			~~N~~	~~AC~~	~~06/30/89~~	~~J72324~~	~~2~~	~~1088~~	~~CABLE ASSEMBLY,(CX50)~~	2	PLA	
PL	12314979	D		N	B	04/07/83	J33888	1	1088	PANEL,FRONT-MARKING DRAWING	2	265	

PREFIX	DRAWING NUMBER	SIZE	DWG S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12314980	C	N	A	03/23/82	REL-A	1	1088	GASKET,MEMORY MODULE	2	029	
	12314981	D	N	A	03/23/82	REL-A	1	1088	GASKET,INTERFACE MODULE	2	029	
	12314982	D	N	A	03/23/82	REL-A	1	1088	GASKET,TRANSIT CASE	2	029	
	12314983			C	09/30/86	J57503		1088	COVER,MEMORY MODULE	2	029	
	12314984	E	N	D	08/12/83	J37228	1	1088	CHASSIS ASSEMBLY	2	021	
PL	12314984	A	N	D	08/23/83	J37228	2	1088	MEMORY MODULE FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314985	C	N	B	05/04/82	J26926	1	1088	SPACFR,PCB	2	029	
	12314986	D	N	A	03/16/82	REL-A	1	1088	RETAINER ASSEMBLYPCB	2	021	
PL	12314986	A	N	A	09/22/82	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314987	C	N	A	03/16/82	REL-A	1	1088	MEMORY MODULE-MARKING DWG	2	265	
	12314988	E	N	D	07/21/83	J37200	1	1088	TRANSIT CASE ASSY ACCESSORIES	2	021	
PL	12314988	A	N	D	07/21/93	J37200	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314989	C	N	C	04/05/83	J33884	1	1088	STE-X ANALYZER SET,VEHICULAR	2	021	
PL	12314989	A	N	C	04/05/83	J33884	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314990	E	N	H	07/21/83	J37201	1	1088	TRANSIT CASE,ACCESSORIES	2	021	
PL	12314990	A	N	H	07/21/83	J37201	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314991	D	N	U	04/18/89	J67244	2	1085	CABLE ASSEMBLY CX150	2	277	
PL	12314991	A	N	U	04/18/89	J67244	2	1088	CABLE ASSEMBLY,(CS150)	2	PLA	
	12314992	D	N	L	03/10/89	J67234	1	1088	TK CABLE ASSEMBLY (CX152)	2	277	
PL	12314992	A	N	L	03/10/89	J67234	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314993	D	N	K	09/30/86	J57502	1	1088	CABLE ASSY TK POWER (CX151)	2	277	
PL	12314993	A	N	K	09/30/86	J57502	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314994	D	N	B	04/21/83	J35514	2	1088	COVER,INTERFACE MODULE	2	021	
PL	12314994	A	N	B	04/21/83	J35514	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314995	D	N	B	04/21/83	J35515	1	1088	COVER,MEMORY MODULE	2	021	
PL	12314995	A	N	B	04/21/83	J35515	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314997	D	N	D	11/02/84	J43176	1	1088	ADAPTER (CA151)	2	277	
PL	12314997	A	N	D	11/02/84	J43176	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12314998	D	N	E	05/09/83	J35543	2	1088	ADAPTER (CA150)	2	021	
PL	12314998	A	N	E	05/09/83	J35543	1	1088	COVER,INTERFACE MODULE	2	PLA	
	12314999	E	N	I		777777	1	1088	FOR MC ONLY-HARD COPY N/A	5	029	
	12315004	A	N	C	05/05/83	J35540	26	1088	COVER ASSEMBLY (LAYOUT)	2	MLA	
	12315005	A	N	J	08/10/83	J37226	35	1088	WCL-INTERFACE MODULE WCL-MAIN FRAME	2	MLA	
PL	12315006	A	N	L	06/06/90	J76626	2	1088	POWER CABLE (CX51)	2	277	
	12315008	E	N	A	05/03/82	REL-A	2	1088	TRANSIT CASE,LIGHTWEIGHT	2	044	
	12315009				05/15/87	J61121		1088	SNUBBER	2	029	
	12315010			C	02/26/88	J61180		1088	SNUBBER ASSEMBLY	2	021	
PL	12315010			C	02/26/88	J61180		1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315011	E	N	A	08/02/82	REL-A	2	1088	LIQUID CRYSTAL DISPLAY 2 X 20 CHARACTERS	2	025	
	12315012	E	N	C	11/18/82	J26943	2	1088	LCD DRIVER ASSEMBLY	2	025	
	12315013	D	N	A	08/02/82	REL-A	2	1088	CONNECTOR LCD	2	025	
	12315016	E	N	A	11/01/82	REL-A	1	1088	CERAMIC BOARD,TEST	2	029	
PL	12315017	A	N	J	04/12/83	J33891	5	1088	HOUSING,SET COMMUNICATOR	2	021	
	12315018			G	01/06/96	J49752		1088	CHASSIS,SET COMMUNICATOR	2	021	
PL	12315019	A	N	G	01/06/86	J49752	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	

PREFIX	DRAWING NUMBER	SIZE	DW=S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12315021	D	N	C	09/30/86	J57503	1	1088	PLATE,CONTENTS	2	029	
	12315022	D	N	F	09/30/86	J57503	1	1088	PLATE,CONTENTS	2	029	
	12315023	E	N	C	07/27/89	J72336	1	1088	CABLE,MULTICONDUCTOR-SHIELDED	2	025	
	12315024	C	N	E	01/31/89	J67229	1	1088	ADAPTER,STRAIGHT SHIELDED	2	025	
	12315025	D	N	A	11/16/82	REL-A	2	1088	PWB-LCD TEST ADAPTER	2	265	
									SHEET 1 IS NOT RELEASED			
PL	12315026	E	N	E	01/18/84	J37263	1	1088	DISPLAY ASSEMBLY	2	021	
	12315026	A	N	E	01/18/84	J37263	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315028	E	N	B	02/01/83	J33816	1	1088	BEZEL	2	029	
	12315029	D	N	B	01/26/83	J33807	1	1088	MOUNT,LCD	2	029	
PL	12315030	D	N	C	07/11/84	J37295	1	1088	MOUNT ASSEMBLY LCD	2	021	
	12315030	A	N	C	07/11/84	J37295	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
PL	12315031	E	N	D	01/31/84	J37264	1	1088	DISPLAY/COMPUTER ASSEMBLY	2	021	
	12315031	A	N	D	01/31/84	J37264	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315032	D	N	C	01/26/83	J33811	1	1088	FLEXIBLE PW DRIVER BOARD	2	265	
	12315034	E	N	H	02/13/84	J37267	2	1088	CHASSIS ASSEMBLY	1	021	
PL	12315034	A	N	G	10/04/83	J37236	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315035	E	N	D	01/11/84	J37256	1	1088	COVER ASSEMBLY	2	021	
PL	12315035	A	N	C	09/06/83	J37232	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
PL	12315036		N		01/06/86	J49754	3	1088	COVER,SET COMMUNICATOR	2	021	
PL	12315036				01/06/86	J49754	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315038	C	N	E	04/27/89	J67245	1	1088	GASKET,CHASSIS	2	025	
	12315039	C	N	B	09/24/86	J54297	1	1088	GASKET,EMI	2	025	
	12315040	D	N	F	03/12/90	J76600	1	1088	HANDLE,SET-COMMUNICATOR	2	025	
PL	12315041	A	N	D	04/10/85	J47005	1	1088	COVER ASSEMBLY	2	021	
	12315041				04/10/85	J47005	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315042	C	N	B	10/27/83	J37244	1	1088	GASKET,COVER	2	029	
	12315044	C	N	B	01/31/83	J33815	1	1088	WINDOW,CONDUCTIVE	2	044	
	12315045	C	N	B	10/27/83	J37243	1	1088	COVER,BATTERY COMPARTMENT	2	029	
	12315046	D	N	C	10/13/83	J37239	1	1088	COVER	2	029	
	12315047	D	N	C	10/26/83	J37240	1	1088	CHASSIS	2	029	
	12315049	C	N		04/14/87	J61116	1	1088	PADFOOT	2	025	
	12315050	C	N	C	04/12/83	J35503	1	1088	HEATER,LCD	2	044	
	12315052							1088	SPACER,CONNECTOR	2	029	
PL	12315057							1088	STRAP,WEBRING ASSEMBLY	2	021	
	12315057							1088	FOR MC ONLY-HARD COPY N/R	2	PLA	
PL	12315058							1088	STRAP,WEBRING ASSEMBLY	2	021	
	12315058							1088	FOR MC ONLY-HARD COPY N/R	2	PLA	
	12315060							1088	INSERT,COVER	2	029	
	12315061							1088	PADDING,RIBBER	2	029	
	12315062	E	DN	A	12/07/82	REL-A	2	1088	LIQUID CRYSTAL DISPLAY	2	025	
									2 X 20 CHARACTERS			
	12315063				09/24/86	J54297	1	1088	SPACER	2	029	
	12315064	E	N	A	03/15/83	J33860	3	1088	LCD LAMPS FLEXIBLE PW	2	265	
	12315065	C	N	A	12/21/82	REL-A	1	1088	CLIP,FLEXIBLE CABLE	2	029	
	12315066	C	N	F	07/27/89	J72341	1	1088	SCH,SET-COM CHASSIS	2	034	
	12315067	C	N	C	10/30/86	J57551	1	1088	SCH,SET-COM COVER	2	034	
	12315068	C	?	A	01/26/83	REL-A	1	1088	BATTERY,LITHIUM	2	025	
	12315069	E	N	B	06/30/83	J35588	2	1088	SCREW,FLAT HEAD	2	268	

PREFIX	DRAWING NUMBER	SIZE	DWG	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12315070	E	N	C	06/02/88	J66506	1	1088	BOOT,HEAT-SHRINKABLE	2	025	
	12315071	E	N	-		?????	2	1088	LIQ XTAL DISPLAY 2X30 CHAR	5	025	
	12315072	E	N	-		?????	2	1088	LCD DRIVER ASSY 30 CHAR DSPL	5	025	
PL	12315073	D	N				2	1088	ADAPTER CA152	2	021	
	12315073	A	N	M	09/04/85	J49702	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315074	C	N	H	09/04/85	J49702	1	1088	TEST UNIT ASSEMBLY	2	021	
PL	12315074	A	N	R	05/01/83	J35533	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315075	C	N	B	05/01/83	J35533	4	1088	POWER MODULE	2	044	
	12315076	D	N	B	06/15/83	J35567		1088	COVER,BATTERY COMPARTMENT	5	029	
	12315082	E	N	-		?????	2	1088	PWB-TWO BUBBLE MEMORY	2	059	
	12315085	E	N	A	08/12/83	REL-A	10	1088	PWB-ONE BUBBLE MEMORY	2	059	
	12315089	E	N	A	08/09/83	REL-A	10	1088	SCH-LCD DRIVER 30 CHARACTER DISPLAY	2	034	
	12315090	D	N	A	04/11/83	REL-A	2	1088	LABEL,CONTENTS	2	029	
	12315091	E	N	D	04/22/88	J61196	1	1088	BRACKET,HEATER/BOTTOM	2	029	
	12315092	C	N	C	09/25/86	J54298	1	1088	BRACKET,HEATER/TOP	2	029	
	12315093	C	N	A	04/05/93	REL-A	1	1088	WINDOW	2	029	
	12315098	D	N	F	10/30/86	J57532	1	1088	SETCOM INTERCONNECTION DIAGRAM	2	029	
	12315100		N	V	05/11/90	J76624	2	1088	SET-COMMUNICATOR ASSEMBLY	2	021	
PL	12315100		N				2	1088	SET-COMMUNICATOR ASSEMBLY	2	PLA	
	12315101	C	N	A	06/15/83	REL-A	7	1088	IC-BUBBLE MEMORY CONTROLLER	2	044	
	12315102	C	N	D	02/23/89	J67230	2	1088	IC-CMOS OCTAL BUFFER	2	044	
	12315103	C	N	A	05/19/83	REL-A	4	1088	INTEGRATED CIRCUIT, CURRENT PULSE GENERATOR	2		
	12315104	C	N	A	05/19/83	REL-A	5	1088	INTEGRATED CIRCUIT, SENSE AMPLIFIER	2	044	
	12315105	C	N	A	08/12/83	REL-A	3	1088	INTEGRATED CIRCUIT, QUAD 2 INPUT NOR GATE	2	044	
	12315106	C	N	A	06/27/83	REL-A	5	1088	FOUR MEGABIT BUBBLE MEMORY	2	044	
	12315107	C	N	A	05/19/83	REL-A	4	1088	INTEGRATED CIRCUIT, OCTAL BUFFER/DRIVER	2	044	
	12315108		N					1088				
	12315109		N					1088				
	12315110	A	N	A	06/07/84	REL-A	2	1088	IC,CMOS,TRIPLE 3 INPUT NORGATE	2	044	
	12315112	C	N	C	09/25/86	J54299	5	1088	IC-CMOS,MULTIPLYING DAC	2	044	
	12315113	A	N	A	06/07/84	REL-A	2	1088	IC,CMOS HEX SCHMITT TRIGGER	2	044	
	12315114	C	N	A	05/19/83	REL-A	2	1088	INTEGRATED CIRCUIT, 9 BIT PARITY GENERATOR	2	044	
	12315115		N					1088	INTEGRATED CIRCUIT, QUAD COMPARATOR	2		
	12315116	C	N	A	07/18/83	REL-A	2	1088	INTEGRATED CIRCUIT,	2	044	
	12315117	C	N	A	06/15/83	REL-A	3	1088	IC-DUAL J-K FLIP FLOP	2	044	
	12315119		N					1088	RESISTOR NETWORK	2	044	
	12315120	C	N	A	07/18/93	REL-A	2	1088	INTEGRATED CIRCUIT, HEX 2-INPUT NORGATE	2	044	
	12315122	C	N	B	09/24/86	J54297	3	1088	INTEGRATED CIRCUIT	2	044	
	12315123	C	N	B	09/18/86	J54294	5	1088	IC,OPERATIONAL AMPLIFIER	2	044	
	12315124	C	N	C	02/22/90	J76813	4	1088	IC,2K X 8 STATIC RAM	2	044	

PREFIX	DRAWING NUMBER	SIZE	DW#S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12315125	C	N	A	08/19/83	REL-A	2	1088	INTEGRATED CIRCUIT	2	044	
	12315128	C	N	R	08/16/83	REL-A	Y	1088	CAPACITOR,VARIABLE	2	044	
	12315129	C	N	C	11/17/86	J57547	2	1088	IC;DUAL,SPDT,ANALOG GATE	2	044	
	12315130	C	N	B	09/25/86	J54298	2	1088	INTEGRATED CIRCUIT? DUAL DPST ANALOG GATE	2	044	
	12315131	C	N	E	06/12/89	J67248	4	1088	IC,32K (4K X 8) PROM	2	044	
	12315132	A	N	B	09/25/86	J54299	3	1088	FERRITE BEAD?	2	044	
	12315133	C	N	C	07/11/88	J54237	2	1088	IC;DUAL DRIVER?	2	025	
	12315134	C	N	D	06/02/88	J66505	2	1088	CRYSTAL UNIT,QUARTZ	2	044	
	12315135	C	N	C	02/23/89	J67231	3	1088	MOS,OCTAL D LATCH *	2	044	
	12315136	C	N	B	08/28/86	J54286	6	1088	IC,CMOS 3 TO 8 LINE DECODER	2	044	
	12315137	A	N	A	06/07/84	REL-A	2	1088	IC,CMOS OCTAL BUFFER	2	044	
	12315138	C	N	B	07/29/86	J54258	3	1088	IC,CMOS QUAD 2-INPUT NAND GATE	2	044	
	12315139	A	N	A	05/22/84	REL-A	2	1088	IC,DUAL OPERATIONAL AMPLIFIER	2	044	
	12315140	C	N	D	02/23/89	J67232	2	1088	IC,OPERATIONAL AMPLIFIER *	2	044	
	12315161	C	N	C	09/24/86	J54297	2	1088	IC;CMOS;1 OF 8 DECODER*	2	044	
	12315142	C	N	C	09/24/86	J54297	2	1088	IC,CMOS QUARD 2 INP NAND GATE	2	044	
	12315143	C	DN	C	09/24/86	J54297	3	1088	IC,CMOS,DUAL 4 BIT COUNTER	2	044	
	12315144	A	N	A	05/31/84	REL-A	2	1088	IC,CMOS,1 OF 8 DECODER	2	044	
	12315145	A	N	A	05/31/84	REL-A	2	1088	IC,MOS DRIVER	2	044	
	12315146	B	DN	C	09/24/86	J54297	2	1088	IC,VOLTAGE REGULATOR	2	044	
	12315147	C	N	E	06/02/88	J66506	2	1088	IC,VOLTAGE REGULATOR	2	044	
	12315148	C	N	C	11/30/89	J67289	2	1088	MARKER,CABLE*	2	029	
	12315149	C	N	C	08/29/89	J67263	3	1088	MARKER,CABLE*	2	029	
	12315150	E	N	B	05/13/83	J35549	1	1088	TRANSIT CASE/HOUSING T.S.C.	2	029	
	12315151	E	N	A	04/25/83	REL-A	1	1088	TRANSIT CASE T.S.C.	2	044	
	12315152	A	N	B	08/17/84	J43104	3	1088	EPOXY,CONDUCTIVE*	2	025	
	12315153	A	N	A	04/20/83	REL-A	2	1088	PLASTAZOTE	2	025	
	12315154	C	N	A	09/14/84	REL-A	2	1088	ANALYZER SET VEHICULAR	2	029	
PL	12315155	A	N	A	09/18/84	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315155	E	N	J	03/12/87	J57591	2	1088	TEST UNIT	2	021	
PL	12315156	A	N	J	03/12/87	J57591	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315156	E	N	AP	03/09/87	J57582	2	1088	MAIN FRAME ASSEMBLY	2	029	
PL	12315157	E	DN	AP	03/09/87	J57582	5	1088	MAIN FRAME ASSEMBLY	2	PLA	
	12315157	E	N	H	04/02/86	J49792	1	1088	TRANSIT CASE ASSY,ACCESSORIES	2	029	
PL	12315161	A	N	L	03/30/87	J57599	3	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315161	E	N	L	03/30/87	J57599	1	1088	COMPUTER CIRCUIT CARD ASSY	2	021	
	12315162	A	N	F	07/11/86	J54238	6	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315163	E	N	E	07/24/85	J48614	9	1088	SCH,STE-X-CPU BOARD	2	029	
	12315177	E	N	R	03/16/87	J57592	2	1088	PWB,COMPUTER	2	059	
PL	12315177	A	N	R	03/15/87	J57592	2	1088	INTERFACE MODULE ASSEMBLY	2	021	
	12315185	E	N	J	04/29/88	J67202	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
PL	12315185	E	N	J	04/29/88	J67202	5	1088	SPECIAL FUNCTIONS CCA	2	021	
	12315186	E	N	E	08/14/86	J54273	2	1088	CCA,SPECIAL FUNCTIONS N/A	2	034	
	12315187	E	N	F	10/27/88	J67227	2	1088	SCH-SPECIAL FUNCTIONS	2	059	
	12315194	E	DN	G	08/10/88	J65293	3	1088	PWB-SPECIAL FUNCTIONS	2	059	
PL	12315194	A	N	G	08/10/88	J65293	2	1088	TRANSIT CASE WITH INSERT	2	029	
	12315195	E	N	L	04/29/88	J67201	1	1088	FOR MC ONLY-HARD COPY N/A TRU DRIVE CIRCUIT CARD ASSY	2	021	

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PREFIX	DRAWING NUMBER	SIZE	DW#S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
PL	12315195	A	N	L	04/29/88	J67201	4	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315196	D	N	B	05/23/85	J47041	2	1088	SCH-IRU DRIVE	2	034	
	12315197	E	N	D	10/27/88	J67227	2	1088	PWB-IRU DRIVE	2	029	
	12315198	E	N	-		??????	2	1088	LIQUID CRYSTAL DISPLAY 2 X 30 CHARACTERS	5	025	
	12315199	D	N	A	08/17/83	REL-A	1	1088	BOARD PULLER,MAINFRAME	2	029	
	12315200	D	N	A	08/17/83	REL-A	1	1088	BOARD PULLER,INTERFACE	2	029	
	12315201	C	N	B	09/24/86	J54297	2	1088	IC-RMS-TO-DC CONVERTER	2	044	
	12315202	C	N	E	09/24/86	J54297	2	1088	IC-BIFET OPERATIONAL AMPS	2	044	
	12315203	C	N	B	09/24/86	J54297	1	1088	IC-2.5 VOLTS REGULATOR	2	044	
	12315205	C	N	D	04/16/87	J61107	1	1088	CRYSTAL-QUARTZ	2	025	
	12315206	C	N	B	06/02/88	J66509	1	1088	IC-PHOTON COUPLED ISOLATOR	2	044	
	12315207	C	N	A	12/14/82	REL-A	3	1088	IC-LCD DRIVER	2	044	
	12315208	C	N	E	06/04/87	J61127	4	1088	IC-16K 8IT-RAM	2	044	(F-J76641)
	12315209	C	N	C	07/16/86	J54254	3	1088	IC-CMOS-A/D CONVERTER	2	044	
	12315210	C	N	A	09/21/82	REL-A	2	1088	IC-VOLTAGE COMPARATOR	2	044	
	12315211	C	N	A	11/01/32	REL-A	2	1088	IC-16K UV ERASABLE PROM	2	044	
	12315212	C	N	-		??????	2	1088	TRANSISTOR,FET/N CHANNEL	5	044	
	12315213	C	N	D	02/14/86	J49775	4	1088	IC-OCTAL LATCH/DRIVER	2	044	
	12315214	C	N	C	11/19/84	J43680	2	1088	PHOTON COUPLED ISOLATOR	2	044	
	12315215	C	N	B	09/24/86	J54297	3	1088	IC-CMOS,BCD TO DECIMAL CONV	2	044	
	12315216	C	N	A	09/21/82	REL-A	2	1088	IC-CMOS,DUAL D FLIP FLOP	2	025	
	12315217	C	N	B	06/06/84	J37287	5	1088	IC-8 BIT MICROCOMPUTER	2	044	
	12315218	C	N	C	02/03/88	J61171	2	1088	IC-DUAL VOLTAGE COMPARATOR	2	044	
	12315219	C	N	A	09/21/82	REL-A	2	1088	TRANSISTOR,NPN	2	044	
	12315220	C	N	A	09/25/86	J54298	2	1088	SEMICONDUCTOR DEVICE,DIODE	2	044	
	12315221	E	DN	H	10/30/84	J43169	2	1088	CIRCUIT CARD ASSEMBLY COMPUTER	2	021	
PL	12315221	A	N	H	10/30/84	J43169	5	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315222	E	DN	F	10/30/84	J43171	2	1088	SCH-COMPUTER	2	034	
	12315223	E	N	B	02/01/84	J37262	2	1088	PWB-COMPUTER INACTIVE	1	265	
	12315224	E	DN	H	02/29/84	J37274	1	1088	CIRCUIT CARD ASSEMBLY DMM INACTIVE	1	021	
PL	12315224	A	N	H	02/29/84	J37274	5	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12315225	E	N	F	01/31/84	J37259	1	1088	SCH-DMM	2	034	
	12315226	E	DN	D	04/12/83	J35501	9	1088	PWB-DMM INACTIVE	1	265	(E-J37235)(F-J37254)(G-J37258)
	12315227	C	N	-		??????	3	1088	IC-CMOS,5 STAGE JOHNSON COUNTER	5	044	
	12315228	C	N	B	02/29/84	J37273	1	1088	RESISTOR,FIXED,WIREWOUND	2	044	
	12315229	C	N	C	03/27/86	J49790	1	1088	CONVERTER DC-DC	2	025	
	12315230	C	N	F	07/12/90	J76644	1	1088	CONNECTOR,ELECTRICAL SPECIAL PURPOSE	2	025	
	12315231	C	N	C	07/25/89	J67252	1	1088	CONNECTOR	2	025	(D-J76643)
	12315232	C	N	F	07/12/90	J76645	1	1088	CONNECTOR,P.C. BOARD	2	025	
	12315233	C	N	D	07/23/87	J61135	1	1088	CONNECTOR,PC BOARD	2	025	
	12315234	C	N	F	01/11/84	J37255	3	1088	KEYBOARD	2	025	
	12315235	C	N	F	04/14/87	J61109	1	1088	CLIP,BATTERY	2	025	
	12315236	C	N	C	09/24/86	J54297	1	1088	SOCKET STRIP	2	025	

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	12315237	C	N	D	03/14/89	J87236	1	1088	SOCKET STRIP	2	025	
	12315238	C	N	C	09/25/86	J54298	1	1088	TERMINAL STRIP	2	025	
	12315239	C	N	E	07/12/90	J76648	1	1088	NETWORK,RESISTOR	2	044	
	12315240	C	N	A	10/27/82	REL-A	1	10P8	NETWORK,RESISTOR	2	044	
	12315241	C	N	A	11/01/82	REL-A	2	1088	IC-PROGRAMMABLE OPERATIONAL AMPLIFIER	2	044	
	12315242	C	N	A	10/13/82	REL-A	1	1088	CAPACITOR,FIXED-POLYPROPYLENE	2	044	
	12315243	C	N	D	03/06/86	J49782	1	1088	CAPACITOR,FIXED-POLYUPROPYLENE	2	044	
	12315244	C	N	A	10/13/82	REL-A	1	1088	CLIP,FUSE	2	025	
	12315245	C	M	E	09/24/86	J54297	1	1088	PIN,CONTACT	2	025	
	12315246	C	N	A	11/22/82	REL-A	1	1088	PIN,RECEPTACLE	2	025	
	12315247	C	N	A	10/26/82	REL-A	1	1088	THERMISTOR,NTC	2	044	
	12315248	C	N	A	11/02/82	REL-A	1	1088	TERMINAL,NON-INSULATED	2	025	
	12315249	C	N	C	09/24/86	J54297	1	1088	INSERT	2	025	
	12315250	C	N	B	03/27/86	J49789	1	1088	SWITCH,PUSHBUTTON (SPDT)	2	025	
	12315251	C	N	A	12/17/82	REL-A	4	1088	IC-CMOS,4 CHANNEL MULTIPLEXER	2	044	
	12315252	C	N	R	11/18/82	REL-A	1	1088	TERMINAL,INSULATED	2	025	
	12315253	A	N	B	10/03/86	J57506	6	1088	RUBBER,SPONGE,ADHESIVE-BACKED	2	025	
	12315254	A	N	B	09/30/86	J57503	3	1088	COMPOUND MOLDING/ABS	2	025	
	12315255	A	M	B	07/27/89	J61254	2	1088	CONDUCTIVE COATING,SET COMM	2	025	
	12315256	A	N	H	01/16/83	REL-A	3	1088	ADHESIVE,CONDUCTIVE	2	025	
	12315257	C	N	M	02/16/90	J76610	3	10RR	KEYBOARD,4 X 5 MATRIX	2	025	
	12315258	C	N	E	02/27/89	J58926	4	10RR	INTEGRATED CIRCUIT,	2	044	
	12315259	C	N	C	01/04/83	REL-A	1	1088	WIRE,LIGHT WEIGHT/1000 VOLT	2	025	
	12315260	A	N	B	09/30/86	J57503	2	1088	SURFACE FINISH,MOLD	2	026	
	12315261	C	N	A	03/23/83	REL-A	1	1088	CAPACITOR,FIXED POLYPROPYLENE	2	025	
	12315262	C	N	A	06/16/83	REL-A	2	1088	IC-OPERATIONAL AMPLIFIER	2	044	
	12328450	D	N	B	03/12/87	J53993	5	1088	IC,256K(32KX8)UV PROM	2	044	
	12328464	D	N	A	11/06/85	REL-A	1	1088	BRACKET ASSEMBLY	2	029	
PL	12328464	A	N	B	12/15/83	J37250	1	1088	BRACKET ASSEMBLY	2	PLA	
	12335564	C	N	-	??????		2	1088	MASK,WINDOW	2	029	
	12335565	C	N	-	??????		1	1088	GASKET,COVER	5	029	
	12335569	A	N	C	09/30/86	J57502	2	1088	CABLE ASSEMBLY CX304	2	277	
PL	12335569	A	N	C	09/30/86	J57502	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335570	D	N	B	09/30/86	J57502	2	1088	CABLE ASSEMBLY CX305	2	277	
PL	12335570	A	N	B	09/30/86	J57502	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335571	D	N	C	09/30/86	J57502	2	1088	CABLE ASSEMBLY CX307	2	277	
PL	12335571	D	N	C	09/30/86	J57502	2	1088	FOR MC ONLY-HARD COPY CX307	2	PLA	
	12335572	A	N	C	09/30/86	J57502	2	1088	CABLE ASSEMBLY CX308	2	277	
PL	12335572	D	N	C	09/30/86	J57502	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335573	A	N	C	10/03/86	J57505	2	1088	CABLE ASSEMBLY CX309	2	277	
PL	12335573	D	N	C	10/03/86	J57505	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335574	E	N	R	05/11/90	J76623	6	1088	CIRCUIT CARD ASSY/STE-ICE-FCN	2	021	
PL	12335574	E	DN	K	11/09/89	J67279	5	1088	CCA-STE-ICE-FUNCTION	2	034	
	12335575	E	DN	G	11/16/89	J67286	2	1088	SCH-STE/ICE-FUNCTION	2	059	
	12335576	E	N	H	05/11/90	J76623	1	10RR	PWB-STE/ICE-FUNCTION	2	021	
	12335577	A	M	N	05/11/90	J76623	3	10RR	CIRCUIT CARD ASSY INPUT MUX	2	PLA	
PL	12335577								FOR MC ONLY-HARD COPY N/A	2	PLA	

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	12335578	E	N	J	11/09/89	J67280	2	1088	SCH-INPUT MUX	2	034	
	12335579	E	N	D	10/27/88	J67227	2	1088	PWB-INPUT MUX	2	029	
PL	12335580	E	N	AK	06/22/90	J76640	2	1088	CIRCUIT CARD ASSY FINAL MUX	2	021(AL-J76649)	
	12335580	A	N	AK	06/22/90	J76640	9	1088	CCA,FINAL MUXASSY,FINAL MUX	2	PLA(AL-J76649)	
	12335581	E	N	J	11/09/89	J67282	4	1088	SCH-FINAL MUX	2	034	
	12335582	E	N	K	11/16/89	J67287	2	1088	PWB-FINAL MUX	2	059	
	12335583	E	N	-	?????		2	1088	PANEL ASSEMBLY,FRONT	5	021	
	12335584	D	N	-	?????		1	1088	GASKET,FRONT PANEL	5	029	
	12335585	D	N	-	?????		2	1088	PANEL,FRONT(INTERFACE MODULE)	5	021	
	12335586	C	N	-	?????		1	1ORB	MARKING DRWING MEMORY MODULE	5	029	
	12335587	C	N	-	?????		1	1088	MARKING DWG INTERFACE MODULE	5	029	
	12335588	E	N	-	?????		1	1088	GUIDEASSY,MEMORY MODULE	5	021	
	12335589	E	N	-	?????		1	1088	CHASSIS ASSY,MEMORY MODULE	5	021	
	12335590	E	N	-	?????		3	1ORB	TEST UNIT	5	021	
	12335591	C	N	-	?????		1	1088	GASKET MEMORY MODULE	5	029	
	12335596	D	N	A	06/27/83	REL-A	1	1088	STIFFENER	5	029	
	12335606	D	N	B	11/29/83	J37503	1	1ORB	VARIABLE RELUCTANCE SENSOR (ELECTRICAL)	2	034	
	12335609	E	N	F	07/24/84	J37296	2	1ORB	TRANSIT CASE/HOUSING TSC (HD)	2	044	
PL	12335613	C	N	C	05/01/86	J49796	1	1088	CONNECTOR ASSEMBLY,ELECTRICAL	2	021	
	12335613	A	N	C	05/01/86	J49796	1	1088	FOR M/C ONLY-HARD COPY N/A	2	PLA	
PL	12335614	C	N	A	11/05/84	REL-A	1	1088	CONNECTOR ASSEMBLY,ELECTRICAL	2	021	
	12335614	A	N	A	11/02/84	REL-A	1	1088	CONNECTOR ASSEMBLY,ELECTRICAL	2	PLA	
PL	12335615	C	N	A	11/05/84	REL-A	1	1088	CONNECTOR ASSEMBLY,ELECTRICAL	2	021	
	12335615	A	N	A	11/02/84	REL-A	1	1088	CONNECTOR ASSEMBLY,ELECTRICAL	2	PLA	
PL	12335618	C	N	A	11/05/84	REL-A	1	1088	CONNECTOR ASSEMBLY,ELECTRICAL	2	021	
	12335618	A	N	A	11/02/84	REL-A	1	1088	CONNECTOR ASSEMBLY,ELECTRICAL	2	PLA	
PL	12335621	E	N	E	10/30/84	J43170	2	1088	CIRCUIT CARD ASSY COMPUTER	2	029	
	12335621	A	N	E	10/30/84	J43170	4	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335622	E	N	D	10/19/84	J43160	1	1088	SCH-COMPUTER	2	034	
	12335623	E	DN	C	10/16/84	J43157	2	1088	PWB-COMPUTER	2	059	
	12335625							1088	CIRCUIT CARD ASSY COMPUTER	2	029	
	12335625		N					1088		2	PLA	
	12335626		N					1088	SCH-COMM	2	034	
	12335621							1088	PWB-COMM	2	059	
	12335626	D	N	M	02/01/88	J61153	7	1088	ECU MODULE 2/36	2	025	
	12335629	D	N	W	03/26/90	J76618	6	1088	INVERTER,DC TO RC	2	026	
	12335638	C	N	A	01/06/84	REL-A	1	1088	WINDOW,SET,COMMUNICATOR	2	044	
	12335639	C	N	B	11/05/86	J57541	1	1088	RESISTER,FIXED,FILM	2	044	
	12335640	C	N	C	11/05/86	J51540	1	1088	RESISTER,FIXED,FILM	2	044	
	12335641	C	N	A	01/17/84	REL-A	1	1088	INTEGRATED CIRCUIT,	2	044	
	12335642											
	12335643	C	N	B	09/25/86	J54298	2	1088	CMOS DUAL SPDT ANALOG GATE	2	029	
	12335644	C	N	A	03/28/84	REL-A	2	1088	IC-CMOS,QUAD 2-INPUT-NOR GATE	2	044	
	12335645	C	N	B	09/25/86	J54298	1	1088	FUSE,GLASS BODY	2	029	
	12335648	C	N	C	05/18/87	J61124	1	1088	WINDOW, SET COMMUNICATOR	2	025	
	12335649	C	N	H	05/14/86	J54205	6	1088	POWER MODULE	2	029	
	12335650	D	N	G	06/03/88	J66569	2	1088	MOUNTING PLATE ASSEMBLY	2	021	

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PL	12335650	A	N	G	06/03/88	J66569	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335651	C	N	B	08/04/88	J66529	1	1088	GASKET	2	029	
	12335652	D	N	C	06/03/88	J66570	1	1088	SUPPORT ASSEMBLY,SWITCH BANK	2	021	
PL	12335655	A	N	C	06/03/88	J60721	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335656	D	N	B	05/29/87	J66531	1	1088	SILK SCREEN,COVER ASSY,GUN SIM2		029	
	12335657	C	N	B	07/29/88	REL-A	1	1088	GUARD,CIRCUIT BREAKER	2	029	
	12335658	E	N	A	07/31/84	REL-A	1	1088	GASKET,CIRCUIT BREAKER	2	029	
PL	12335658	A	N	L	05/31/89	J72308	1	1088	CHASSIS ASSY,GUN SIMULATOR	2	021	
	12335659	C	N	L	05/31/89	J72308	1	1088	CHASSIS ASSY,GUN SIMULATOR	2	PLA	
	12335660	C	N	C	06/02/88	J66532	1	1088	ENCLOSURE	2	025	
PL	12335660	A	N	A	07/31/84	REL-A	1	1088	GRASPER/LATCH ASSEMBLY	2	021	
	12335661	A	N	A	08/07/84	REL-A	1	10R8	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335662	C	N	A	07/31/84	REL-A	1	10R8	ANCHOR PLATE	2	029	
	12335663	C	N	C	07/29/88	J66533	2	1098	ACOUSTICAL INDICATOR	2	025	
	12335664	C	N	D	07/29/88	J66534	1	1088	CIRCUIT BREAKER WITH SEAL	2	025	
	12335665	C	N	B	10/27/87	J61160	2	1088	CONNECTOR,ELECTRICAL	2	025	
	12335665	D	N	A	10/30/84	REL-A	1	1088	KEY,POLARIZING	2	025	
PL	12335667	A	N	A	07/31/84	REL-A	1	1088	STRAP ASSEMBLY	2	021	
	12335667	A	N	A	08/07/84	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335668	C	N	B	06/02/88	J66535	2	1088	BUMPER PAD	2	029	
	12335671	C	N	E	07/29/88	J66536	2	1088	SWITCH,LIGHTED PB ANDINDICATOR2		025	
	12335672	C	N	D	06/02/88	J66538	2	1088	CONNECTOR,INPUT/OUTPUT 30 PIN	2	025	
	12335673	C	N	D	06/02/88	J66538	2	1088	CONNECTOR,INPUT/OUTPUT 60 PIN	2	025	
PL	12335676	A	N	F	06/10/87	J61128	1	1088	BRACKET ASSEMBLY	2	021	
PL	12335676	A	N	F	06/10/87	J61128	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335677	C	N	H	01/24/86	J49761	1	1088	PIN,GUIDE	2	029	
	12335678	E	N	H	09/25/86	J54299	2	1088	CHASSIS ASSEMBLY MEMORY MODULE2		021	
PL	12335679	A	N	G	09/12/86	J54291	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335679	C	N	A	08/13/84	REL-A	1	1088	GUIDE	2	025	
	12335680	C	N	A	09/14/84	REL-A	2	1088	WASHER	2	025	
	12335681	C	N		12/11/87	J61285	1	1088	IC,8 BIT MICROCOMPUTER	2	044	
	12335682	A	N	E	06/12/89	J67318	2	1088	IC,MICROPROCESSOR	2	044	
	12335683	D	ON	D	06/05/90	J74288	2	1088	IC,CLOCKGENERATOR	2	044	
	12335684	A	N	B	10/22/84	J43187	2	1088	IC,DUAL OPERATIONAL AMPLIFIER	2	044	
	12335685	C	N	E	12/04/89	J67278	1	1088	IC,OSCILLATOR XTAL 6-16KMHZ 2		044	
	12335686	C	N	D	09/10/87	J61143	3	1088	IC,HEX INVERTER	2	044	
	12335687	C	N	B	08/28/86	J54287	1	1088	IC,QUAD 2-INPUT AND GATE	2	044	
	12335688	C	N	E	06/06/90	J76858	3	1088	IC,CONTROLLER	2	044	
	12335689	C	N	D	12/04/89	J61277	3	1088	IC,CMOS,OCTAL BUS TRANSCEIVER 2		044	
	12335690	A	N	B	11/06/84	J43180	2	1088	IC,128K UV ERASABLE PROM	2	044	
	12335691	C	N	C	09/24/86	J54297	2	1088	IC,QUAD 2-INPUT NOR GATE	2	044	
	12335692	C	N	C	08/28/86	J54288	2	1088	IC,D FLIP FLOP	2	044	
	12335693	C	N	B	11/11/86	J57546	2	1088	IC,64K X 4 DRAM	2	044	
	12335694	C	N	C	08/11/87	J61157	1	1088	IC,HEX 2-INPUT DRIVER	2	044	
	12335695	A	N	A	06/19/84	REL-A	2	1088	DUAL DIODE	2	044	
	12335696	C	N	C	09/25/86	J54298	2	1088	IC,DUAL VOLTAGE COMPARATOR	2	044	
	12335697	C	ON	D	02/20/90	J74608	3	1088	IC,CMOS,OCTAL D FLIP FLOP	2	044	
	12335699	C	N	C	09/25/86	J54298	2	1088	IC,OPERATIONAL AMPLIFIER	2	044	
	12335700	C	N	B	09/25/86	J54298	1	1088	RESISTOT NETWORK	2	044	

PROGRAM MC0301-V029
SUBSET OF ENGINEERING DATALIST

DATE : 08/03/90

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PREFIX	DRAWING NUMBER	SIZE	DWG	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12335701	C	N	C	09/25/86	J54298	2	1088	IC,10V-REFERENCE	2	044	
	12335702	C	M	D	08/10/39	J67257	2	1088	IC,OPERATIONAL AMPLIFIER	2	044	
	12335703	C	N	C	02/12/87	J57570		1088	RESISTOR-NETWORK	2	044	
	12335704	A	N	A	06/22/84	REL-A	2	1088	BUBBLE MEMORY,1 MBIT	2	044	
	12335705	C	N	B	08/06/86	J54269	2	1088	IC,CURRENT PULSE GENERATOR	2	044	
	12335706	C	N	E	04/05/90	J76621	7	1088	IC-BUBBLE MEMORY CONTROLLER	2	044	
	12335707	C	N	B	11/05/86	J57538	3	1088	IC,CMOS,OCTAL BUFFER	2	044	
	12335708	C	N	B	09/25/86	J54298	2	1088	CONNECTOR,ELECTRICAL(MTHBC)	2	025	
	12335709	C	M	D	09/30/86	J57500	1	1088	CONN,ELECTRICAL(MOTHER BOARD)	2	025	
	12335710	C	N	E	03/17/87	J57593	1	1088	CONN,ELEC (INPUT/OUTPUT)	2	025	
	12335711	C	N	C	10/16/86	J57527	1	1088	CONNECTOR,ELECTRICAL(CKT ED)	2	025	
	12335712	C	N	C	09/25/86	J54299	5	1088	IC,8 BIT MICROCOMPUTER	2	044	
	12335713	A	N	A	06/19/84	REL-A		1088	MAGNETIC BUBBLE/PULSE GEN, MATCHEDSET	2	276	
	12335714	C	N	B	06/06/86	J54215	2	1088	TRANSISTOR,MOS,FET	2	044	
	12335715	C	N	C	09/25/86	J54299	1	1088	TRANSISTOR,FET,N-CHANNEL	2	044	
	12335716	C	N	B	09/25/86	J54299	1	1088	RESISTOR NETWORK	2	044	
	12335717	A	N	A	06/28/84	REL-A	2	1088	IC,CMOS,QUAD 2 INPUT NOR GATE	2	044	
	12335718	C	N	D	09/25/86	J54298	2	1088	RESISTOR,FIXED,FILM	2	044	
	12335719	C	N	A	11/05/84	REL-A	1	1088	FERRITE BEAD	2	025	
	12335720	A	N	A	08/13/84	REL-A	2	1088	IC-HEX 2 INPUT DRIVER	2	044	
	12335721	C	N	F	12/10/87	J60785	2	1088	IC,CMOS TPL 3 INPUT NAND GATE	2	044	
	12335722	A	N	A	10/01/84	REL-A	1	1088	IC,MOS DRIVER	2	044	
	12335723	C	N	B	09/25/86	J54299	1	1088	CONNECTOR/PIN (PCB TYPE) CONTACT,ELECTRICAL	2	025	
	12335724	C	N	C	09/25/86	J54299	1	1088	CONNECTOT/SOCKET(PC TYPE)CONTACT	2	025	
	12335725	C	N	B	09/25/86	J54299	1	1088	CONNECTOR/PIN (PCB TYPE) CONTACT,ELECTRICAL	2	025	
	12335726	C	N	B	09/25/86	J54299	1	1088	CONNECTOR/SOCKET CONTACT,ELECT	2	025	
	12335727	B	N	A	10/23/84	REL-A	1	1088	CONNECTOR (LESS CONTACTS)	2	029	
	12335728		N		04/16/87	J61106		1088	RESISTOR,BUBBLE MEMORY	2	025	
	12335729	C	N	A	11/07/84	REL-A	2	1088	IC,MOS LATCH DRIVER	2	044	
	12335730	C	N	H	06/06/90	J76636	9	1088	IC,128K-STATIC ROM	2	044	
	12335731	E	N	P	07/02/86	J54233	1	1088	CCA,SINGLE BUBBLE MEMORY CIRCUIT CARD MEMORY	2	021	
PL	12335731	A	N	P	07/02/86	J54233	4	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335732	E	N	F	07/29/86	J54260	4	1088	SCH,ONE BUBBLE MEMORY	2	029	
	12335733	E	N	D	07/08/86	J54235	2	1088	PWB,ONE BUBBLE MEMORY	2	059	
	12335734	E	N	N	07/01/86	J54230	1	1088	CCA,3 BUBBLE MEMORY CIRCUIT CARD ASSEMBLY	2	021	
PL	12335734	A	N	N	07/01/86	J54230	5	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335735	E	N	H	07/29/86	J54256	4	1088	SCH,THREE BUBBLE MEMORY	2	029	
	12335736	E	N	D	07/08/86	J54232	2	1088	PWB,THREE BUBBLE MEMORY	2	265	
	12335741	C	N	B	10/03/86	J57504	2	1088	LATCH	2	025	
	12335742	C	N	D	10/03/86	J57506	2	1088	RIVET	2	025	
	12335743	D	N	B	08/05/85	J48650	2	1088	MEMORY MODULE ASSEMBLY	2	021	
PL	12335743	A	N	B	08/05/85	J48650	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335744	C	N	E	08/22/85	J48692	1	1088	GASKET,MEMORY MODULE	2	029	

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PREFIX	DRAWING NUMBER	SIZE	DW=S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12335745	E	N	D	09/25/86	J54298	1	1088	D-RING	2	025	
	12335746	E	N	N	08/23/88	J67216	1	1088	CHASSIS ASSEMBLY	2	021	
PL	12335746	A	N	N	08/23/88	J67216	2	1088	CHASSIS ASSY	2	PLA	
PL	12335747	E	N	J	01/12/90	J67292	1	1088	COVER ASSEMBLY	2	021	
PL	12335747	A	N	N	01/12/90	J67292	2	1088	COVER ASSEMBLY	2	PLA	
	12335748	E	N	K	12/17/86	J57553	2	1088	TRANSIT CASE/HOUSING TSC (HD)	2	044	
	12335749	E	N	A	03/01/95	REL-A	1	1088	TRANSIT CASE	2	044	
	12335750	E	N	A	03/01/85	REL-A	1	1088	TRANSIT CASE ASSEMBLY	2	021	
PL	12335751	A	N	L	02/17/86	J49776	1	1088	FLEXPRINT ASSEMBLY MAIN FRAME	2	021	
PL	12335751	E	N	F	02/17/86	J49776	2	1088	FOR MC ONLY HARD COPY N/A	2	PLA	
PL	12335752	A	N	F	10/01/85	J49736	1	1088	FLEXPRINT ASSEMBLY INTERFACE	2	021	
PL	12335752	E	N	F	10/01/85	J49736	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335753	E	N	C	09/30/86	J57503	2	1088	CHASSIS, INTERFACE MODULE CASTING	2	029	
	12335754	E	N	D	06/25/90	J70639	2	1088	CHASSIS, MAIN FRAME CASTING	2	029	
PL	12335755	E	N	G	10/03/86	J57505	2	1088	INTERFACE MODULE NEST MACHININ	2	029	
PL	12335755	B	N	G	10/03/86	J57505	1	1088	FOR MC ONLY HARD COPY N/A	2	PLA	
PL	12335756	E	N	W	06/13/90	J76637	2	1088	MAIN FRAME NEST MACHINTNG	2	021	
PL	12335756	B	N	N	06/13/90	J76637	2	1088	MAIN FRAM NEST MACHINTNGA	2	PLA	
	12335758	E	N	D	08/08/85	J48677	15	1088	FLEXPRINT INTERFACE	2	029	
	12335759	E	N	C	03/21/85	J44997	15	1088	FLEXPRINT MAIN FRAME	1	029	D-J47062)(E-J48641)(F-J48663) (G-J48683)
									INACTIVE			
	12335760	D	N	G	06/25/90	J70639	1	1088	CASTING, MEMORY MODULE	2	029	
PL	12335761	E	N	E	10/03/86	J57502	1	1088	GUIDE ASSEMBLY, MEMORY MODULE	2	021	
PL	12335761	A	N	E	10/03/86	J57505	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
PL	12335762	B	N	B	09/30/86	J57503	2	1088	STIFFENER	2	029	
	12335763	E	N	L	05/06/87	J61120	3	1088	TOP PANEL ASSEMBLY,	2	021	
PL	12335763	A	N	L	05/06/87	J61120	2	1088	FOR MC ONLY HARD COPY N/A	2	PLA	
	12335765	D	N	F	09/16/85	J49718	1	1088	GASKET	2	029	
	12335766	D	N	B	11/13/84	J43190	2	1088	RETAINER, PWA M/F	2	029	
	12335767	D	N	A	09/13/84	REL-A	1	1088	COVER ASSEMBLY	2	021	
PL	12335767	A	N	A	09/19/84	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
PL	12335768	D	N	C	09/30/86	J57503	1	1088	GUIDE PIN	2	029	
PL	12335769	D	N	E	09/30/86	J57502	1	1088	COVER ASSEMBLY M/M	2	021	
PL	12335769	A	N	E	09/30/86	J57502	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
PL	12335770	E	N	D	08/22/85	J48688	1	1088	COVER ASSEMBLY INTERFACE	2	021	
PL	12335770	A	N	D	08/22/85	J48688	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335771	C	N	O	06/02/88	J66539	2	1088	CONNECTOR, ELEC (MOTHER BOARD)	2	025	
	12335772	C	N	C	06/02/88	J66540	2	1088	CONNECTOR, ELEC (MOTHER BOARD)	2	025	
	12335774	D	N	A	09/13/84	REL-A	1	1088	RETAINER, PWA I/M	2	029	
PL	12335775	D	N	A	09/13/84	REL-A	1	1088	COVER ASSEMBLY I/M	2	021	
PL	12335775	A	N	A	09/21/84	REL-A	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
PL	12335776	E	N	H	07/16/86	J54251	1	1088	PANEL ASSEMBLY, FRONT	2	021	
PL	12335776	B	N	H	07/16/86	J54251	2	1088	FOR MC ONLY HARD COPY NA	2	PLA	
	12335778	D	N	G	07/16/86	J54252	1	1088	GASKET	2	029	
	12335779	C	N	B	07/29/88	J66541	1	1088	SHIELD, BEAD	2	025	
	12335780	C	N	A	08/16/85	REL-A	1	1088	GASKET, SHEET	2	029	
	12335781	A	N	O	07/24/95	J48617	4	1088	WELL, SITE-X COPP	2	WLA	
	12335784	C	N	B	08/29/88	J66543	1	1088	RECTIFIER, SILICON	2	025	

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PREFIX	DRAWING NUMBER	SIZE	DW#S		REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12335785	D		N	L	07/20/90	J76818	4	1088	LCD MODULE 2/36	2	026	
	12335786	E		N	P	07/12/90	J76647	2	1088	CIRCUIT CARD ASSEMBLY COMPUTER	2	021	
PL	12335786	A		N	P	07/12/90	J76647	5	1088	CCA,COMPUTER BOARD	2	PLA	
	12335787	E		N	D	06/27/85	J47086	1	10R8	SCH-DIAGRAM COMPUTER	2	034	
	12335788	E		N	H	04/11/89	J68996	2	1088	PWR-COMPUTER	2	059	
	12335789	C		N	C	09/25/86	J54298	2	1088	STUD	2	025	
	12335790	C		N	E	10/14/87	J61157	1	1088	INSULATOR	2	029	
	12335791	C		N	B	03/04/87	J57576	1	1088	INSULATOR	2	029	
PL	12335792	C		N	C	06/05/85	J47049	1	1088	MOUNTING BLOCK	2	021	
PL	12335792	A		N	C	06/05/85	J47049	1	1088	MOUNTING BLOCK	2	PLA	
PL	12335793	E		DN	E	03/19/87	J57595	1	1088	ADAPTER ASSEMBLY CA153	2	021	
	12335794	A		N	E	03/19/87	J57505	1	10R8	ADAPTER ASSEMBLY	2	021	
PL	12335794	E		DN	D	10/03/96	J57505	2	1088	TRAY ASSEMBLY,INSERT	2	PLA	
	12335794	A		N	D	10/03/86	J57505	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335795	C		N	D	10/02/86	J57512	1	10R8	COVER	2	029	
	12335796	D		N	A	10/11/84	REL-A	1	10R8	SPACER PCB	2	029	
PL	12335797	A		N	B	06/02/88	J66572	1	1088	STRAP ASSEMBLY	2	021	
	12335797	A		N	B	06/02/88	J66572	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335798	C		N	B	06/02/88	J66544	2	1088	STRAP END	2	025	
	12335799	E		N	A	11/05/84	REL-A	10	1088	PWB-INTERFACE	2	059	
	12335801	D		N	A	11/05/84	REL-A	1	1088	PWB-MAIN FRAME	2	059	
PL	12335801	A		N	D	03/22/88	J61186	1	1088	CCA EXTENDER	2	029	
	12335802	E		N	D	03/22/88	J61186	2	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335803	E		N	C	04/19/85	J47009	3	1088	PWB EXTENDER	2	265	
	12335804	C		N	C	07/29/88	J66545	2	10R8	GASKET	2	029	
	12335805	E		N	B	09/25/86	J54299	1	10R8	PWB-CA153	2	029	
PL	12335805	C		N	A	01/17/85	REL-A	1	1088	PWA-CA153	2	021	
	12335806	A		N	A	01/18/85	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335807	E		N	D	03/19/87	J57594	3	1088	SCH-ADAPTER CA153	2	029	
	12335808	C		N	A	11/21/84	REL-A	3	1088	RESISTOR NETWORK	2	025	
	12335809	C		N	B	02/08/85	J44950	1	1088	SHIELDING GASKET,EMI/RFI	2	025	
	12335810	C		N	B	09/25/86	J54299	1	1088	PLATE, IDENTIFICATION	2	025	
	12335811	C		N	B	09/25/86	J54299	1	1088	PLATE,IDENTIFICATION	2	029	
	12335812	C		N	B	09/30/86	J57503	1	1088	PLATE CONTENTS TEST UNIT ASSY	2	029	
	12335813	C		N	D	05/06/87	J61119	1	1088	STIFFENER	2	029	
	12335814	C		N	B	04/30/95	J47016	2	1088	BACK PLATE	2	029	
	12335815	C		N	B	03/14/89	J67235	1	1088	PIN,RECEPTACLE	2	029	
PL	12335816	C		N	D	02/16/90	J76809	1	1088	ADAPTER	2	029	
	12335817	C		N	E	07/13/90	J75989	1	1088	GASKET	2	025	
	12335818	C		N	C	07/29/88	J66547	1	1088	GASKET	2	029	
	12335819	A		N	E	03/12/90	J76602	17	1088	ATP FOR SET COMMUNICATOR	2	025	
PL	12335820	C		N	C	09/29/88	J66548	1	1088	ADHESIVE	2	029	
	12335821	D		N	E	03/04/87	J57577	1	1088	COVER-ASSEMBLY I/M	2	PLA	
	12335821	A		N	E	03/04/87	J57577	1	1088	FOR MC ONLY-HARD COPY N/A	2	029	
	12335822	D		N	B	06/07/88	J67207	1	1088	RETAINER PWA I/M	2	PLA	
	12335823	C		N	B	10/03/86	J57504	1	1088	LABEL,PROGRAMMING	2	029	
	12335824	C		N	B	05/14/86	J49799	1	1088	LABEL,RELISION	2	029	
PL	12335825	C		N	B	05/14/86	J54200	1	1088	LABEL,COMPUTER PWA	2	029	

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PREFIX	DRAWING NUMBER	SIZE	DW*S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
	12335826	C	N	C	04/08/87	J61103	1	1088	LABEL,PROGRAMMING	2	029	
	12335827	D	N	E	11/19/86	J57552	1	1088	FIRMWARE KIT,SET COMMUNICATOR	2	029	
PL	12335827				05/14/85	J54202	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335829	D	N	C	05/13/88	J67206	1	1088	COVER ASSEMBLY M/F	2	029	
PL	12335830	D	N	E	05/13/88	J67206	1	1088	COVER ASSEMBLY	2	PLA	
	12335831	E	N	E	03/02/88	J61181	1	1088	RETAINER PWA M/F	2	029	
	12335831	A	N	A	05/31/85	REL-A	1	1088	COVER,BATTERY COMPARTMENT	2	029	
PL	12335832	A	N	C	02/01/88	J61146	1	1088	COVER,ASSEMBLY	2	029	
	12335832	A	N	C	02/01/88	J61146	1	1088	COVER,ASSEMBLY	2	PLA	
	12335834	C	N	C	03/22/88	J61137	1	1088	BRACKET,MOUNTING	2	029	
PL	12335835	E	N	B	10/31/85	J49737	1	1088	CCA EXTENDER	2	029	
	12335835	A	N	B	10/31/85	REL-B	2	1088	CCA,EXTENDER	2	PLA	
PL	12335836	E	N	B	07/08/87	J61131	1	1088	COVER ASSEMBLY	2	021	
	12335836	A	N	B	07/08/87	J61131	1	1088	COVER ASSEMBLY	2	PLA	
	12335837	E	N	D	12/31/86	J57555	2	1088	TEST UNIT ASSEMBLY	2	021	
PL	12335837	A	N	D	12/31/86	J57555	1	1088	TEST UNIT ASSEMBLY	2	PLA	
	12335838	D	N	C	05/29/87	J60724	1	1088	SILK SCREEN,CHAS ASSY,GUN SIM	2	029	
	12335839	C	N	B	05/30/85	REL-A	1	1088	ROUTING	2	025	
	12335840	E	N	B	05/30/85	REL-A	1	1088	SPACER,FLEXPRINT	2	029	
PL	12335851	E	N	D	06/06/90	J76616	1	1088	BASE,ASSEMBLY	2	021	
	12335851	A	N	D	06/06/90	J76616	1	1088	BASE,ASSEMBLY	2	PLA	
	12335852	E	N	A	09/25/85	REL-A	1	1088	HOUSING ASSEMBLY	2	021	
PL	12335852	A	N	A	09/25/85	REL-A	1	1088	HOUSING ASSEMBLY	2	PLA	
	12335853	E	N	C	10/11/88	J67225	1	1088	COVER	2	021	
PL	12335853	A	N	C	10/11/88	J67225	1	1088	COVER	2	PLA	
	12335854	D	N	B	08/05/85	J48646	1	1088	POWER MODULE ASSEMBLY	2	029	
PL	12335854	A	N	B	08/05/85	J48646	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
	12335855	D	N	B	07/09/85	J47097	1	1088	SUPPORT,FLEX PRINT	2	029	
	12335856	C	N	B	07/09/85	J47096	1	1088	CLAMP,FLEX PRINT	2	029	
	12335861	C	N	B	09/25/86	J54299	1	1088	DIODE,VOLTAGE REGULATOR	2	029	
	12335863	C	N	A	07/22/85	REL-A	1	1088	PLA PRINTED CIRCUIT REGUL	2	044	
	12335865	C	N	A	08/30/85	REL-A	1	1088	EPOXY,SILVER	2	025	
	12335866	C	N	B	10/01/85	J49729	1	1088	SCREW	2	268	
	12335868	C	N	A	08/19/85	REL-A	1	1088	GASKET,STRIP	2	044	
	12335869	C	N	A	08/19/85	REL-A	1	1088	GASKET,SHEET	2	044	
	12335870	C	N	A	08/19/85	REL-A	1	1088	GASKET,SHEET	2	044	
PL	12335871	B	N	B	09/16/85	J49717	1	1088	GASKET,ASSEMBLY	2	029	
PL	12335872	B	N	B	09/16/85	J49717	1	1088	GASKET,ASSEMBLY	2	PLA	
	12335873	C	N	A	09/12/85	REL-A	1	1088	BRACKET	2	029	
	12335874	C	N	A	09/12/85	REL-A	1	1088	GASKET,I/M	2	044	
	12335875	C	N	A	09/12/85	REL-A	1	1088	GASKET, M/F	2	044	
	12335877	C	N	A	10/01/85	REL-A	1	1088	GASKET	2	044	
	12335877	C	N	B	09/30/86	J57503	1	1088	COVER,CONNECTOR PINS	2	029	
	12335878	C	N	B	10/30/86	J57536	1	1088	VARISTOR	2	029	
	12335879	C	N	B	10/31/86	J57537	1	1088	DIODE,POWER ZENER	2	029	
	12335880	B	N	B	11/05/86	J57542	1	1088	VARISTOR	2	029	
	12335881	A	N	A	10/10/85	REL-A	1	1088	INSULATOR,MYLAR	2	029	
	12335888	C	N	A	01/06/86	REL-A	1	1088	SPACER	2	029	

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PROGRAM MC0301-V029
SUBSET OF ENGINEERING DATALIST

DATE : 08/03/90

OUTSTANDING ECNS

PREFIX	DRAWING NUMBER	SIZE	DW-S	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE
	12335889	D	N	B	09/12/86	J54292	8	1088	FRAME ASSEMBLY	2	021
PL	12335889	A	N	B	09/12/86	J54292	8	1088	FRAME ASSEMBLY	2	PLA
	12335890	C	N	A	03/13/86	REL-A	1	1088	SCREW,ALTERED	2	029
	12335891	C	N	A	03/13/86	REL-A	1	1088	WASHER,RETAINING	2	029
	12335892	C	N	A	03/13/85	REL-A	1	1088	SCREW,ALTERED	2	269
	12335893	C	N	D	06/06/90	J67295	1	1088	CONN-ELECT (DAUGHTER BOARD)	2	025
	12335894	E	N	B	02/11/88	J61175	2	1088	CONN-ELECT (PC CONNECTOR)	2	025
	12335895	E	N	B	04/08/88	J61194	8	1088	FLEXPRINT MAIN FRAME	2	265
	12335897	E	N	A	06/25/86	REL-A	1	1088	PANEL ASSEMBLY FRONT	2	029
	12335898	E	N	E	03/24/87	J57575	1	1088	CHASSIS ASSY,MEMORY MODULE	2	029
PL	12335898	A	N	E	03/24/87	J57575	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
	12335899	E	N	C	02/19/87	J57573	1	1088	GUIDE-ASSEMBLY,MEMORY MODULE	2	029
PL	12335899	A	N	C	02/19/87	J57573	2	1088	GUIDE ASSEMBLY,MEMORY MODULE	2	PLA
	12335900	E	N	A	06/25/86	REL-A	3	1088	TOP PANEL ASSEMBLY	2	029
	12335901	C	N	C	04/22/88	J61199	1	1088	SCREW	2	268
	12335902	C	N	A	06/25/86	REL-A	1	1088	MARKING,SILK SCREEN	2	029
	12335903	E	N	F	10/11/88	J67223	2	1088	TRANSIT CASE/HOUSING TSC (MD)	2	044
	12335904	E	N	F	06/06/90	J76015	1	1088	BASE ASSEMBLY	2	029
PL	12335904	A	N	F	06/06/90	J76018	1	1088	TRANSIT CASE ASSEMBLY	2	PLA
	12335905	D	N	A	07/30/86	REL-A	1	1088	GASKET MAIN FRAME	2	029
	12335906	D	N	A	06/17/86	REL-A	1	1088	GASKET	2	029
	12335908	B	N	B	02/01/88	J61152	1	1088	GASKET MEMORY MODULE	2	029
	12335909	C	N	A	06/24/86	REL-A	1	1088	LCD MODULE-3	2	025
	12335915	B	N	A	06/24/86	REL-A	1	1088	MARKING,SILK SCREEN	2	029
	12335916	C	N	A	08/12/86	REL-A	2	1088	MAG BUBBLE/PG-MATCHED SET'2	2	276
	12335917	E	N	C	04/22/88	J61198	2	1088	ONE MEGABIT BUBBLE MEMORY	2	044
PL	12335917	A	N	C	04/22/88	J61198	1	1088	COVER ASSEMBLY MEMORY MODULE	2	029
	12335918	E	N	B	07/22/86	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA
	12335919		N		07/22/86	REL-A	1	1088	PANEL ASSEMBLY FRONT	2	029
	12335920		N	B				1088		2	044
	12335921		N					1088		2	021
	12335922		E	C	06/20/90	J76630	4	1088		2	PLA
	12335923		N	A	09/14/90	REL-A	4	1088		2	034
	12335924		N	A	09/12/86	REL-A	2	1088		2	059
	12335925		N		09/08/89	J67766	1	1088		2	021
	12335975		N	E	09/08/89	J67266	5	1088	CCA,THREE BUBBLE MEMORY	2	PLA
PL	12335926		N	C	07/12/90	J76642	4	1088		2	034
	12335927		E	D	10/27/88	J67227	2	1088	CCA,THREE-BUBBLE-MEMORY R	2	059
	12335928		N	G	02/01/90	J76606	1	1088	CCA,COMPUTER	2	029(H-J76540)
PL	12335928		N	H	06/22/90	J76640	8	1088	CCA,COMPUTER	2	PLA
	12335929		E	B	11/09/89	J67281	2	1088	PWB,COMPUTER	2	034
	12335931		N	B	11/16/89	J67288	2	1088	PWB,COMPUTER	2	059
	12335932		C	C	06/06/90	J76636	3	1088	IC 256K12 DYNAMIC-RAM	2	044
PL	12335932		E	H	05/14/90	J76617	1	1088	FLEXPRINT ASSEMBLY MAIN FRAM	2	029
	12335933		A	H	05/14/90	J76617	2	1088	FLEXPRINT ASSEMBLY MAIN FRAM	2	PLA
	12335933		O	C	03/10/87	J57594	1	1088	TAPPING PLATE ASSEMBLY	2	029
PL	12335933		A	C	03/10/87	J57534	1	1088	TAPPING PLATE ASSEMBLY	2	PLA
PL	12335934		N	G	06/06/90	J76635	2	1088	ASSEMBLY,MAIN FRAME	2	029

PROGRAM MC0301-V029
SUBSET OF ENGINEERING DATALIST

DATE : 08/03/90

PREFIX	DRAWING NUMBER	SIZE	DWG	REV	DATE-ISS	ECN	#SH	RESP	DESCRIPTION	L	TYPE	OUTSTANDING ECNS
PL	12335934	A	N	G	06/06/90	J76635	2	1088	ASSEMBLY,MAIN FRAM	2	PLA	
	12335939	C	N	A	11/24/86	REL-A	2	1088	FIRMWARE KIT STE-X	2	029	
PL	12335939	A	N	A	11/24/86	REL-A	1	1088	FOR MC ONLY-HARD COPY N/A	2	PLA	
PL	12335967	A	N	A	11/06/86	REL-A	1	1088	PLATE	2	029	
	12335968	E	N	N	05/31/90	J76627	2	1088	ASSEMBLY-PANEL/NEST	2	029	
PL	12335968	A	N	N	05/31/90	J76627	5	1088	ASSEMBLY PANE/NEST,	2	PLA	
	12335970	E	N	O	12/01/87	J61165	2	1088	CORE-TEST UNIT	2	PLA	
PL	12335970	R	N	O	12/01/87	J61165	1	1088	CORE TEST UNIT	2	PLA	
PL	12335973	D	N	B	04/22/88	J61197	2	1088	MEMORY MODULE ASSEMBLY	2	PLA	
PL	12335973	A	N	B	04/22/88	J61197	2	1088	MEMORY MODULE ASSEMBLY	2	PLA	
	12335974	B	N	A	11/24/86	REL-A	1	1088	ANALOG-SLAVE-CPU	2	029	
									PROGRAMMING PROCEDURES			
	12335975	B	N	A	11/24/86	REL-A	1	1088	ANALOG SLAVE PROM	2	029	
									PROGRAMMING PROCEDURES			
	12335976	B	N	A	11/24/86	REL-A	1	1088	ON-BOARD SLAVE EPM	2	029	
									PROGRAMMING PROCEDURES			
	12335977	B	N	A	11/24/86	REL-A	1	1088	PROM-RESIDENT-OPERATING	2	029	
									PROGRAMMING PROCEDURES			
	12335978	C	N	D	05/31/89	J72308	1	1088	FILTER EMI (T SECTION)	2	044	
	12335979	C	N	D	04/11/90	J75948	1	1088	BRACKET,FILTER MOUNTING	2	029	
	12335980	D	N	B	06/02/88	J66574	2	1088	PLATE,STIFFENER	2	029	
PL	12335980	A	N	B	06/02/88	J66574	1	1088	PLATE,STIFFENER	2	PLA	
	12335981	C	N	B	07/29/88	J66553	1	1088	PLATE,STIFFENER	2	029	
	12335982	C	N	3	07/29/88	J66554	1	1088	SHIELD,CIRCUIT BREAKER	2	029	
	12335983	C	N	B	07/29/88	J66555	1	1088	SHIELD,SWITCH	2	029	
	12335984	D	N	F	05/23/88	J65249	3	1088	MOUNTING PLATE ASSEMBLY	2	029	
PL	12335984	A	N	F	05/23/88	J65249	1	1088	MOUNTING PLATE ASSEMBLY	2	PLA	
PL	12335987	E	N	A	09/15/88	J67217	2	108R	ASSEMBLY TEST UNIT	2	021	
PL	12335987	A	N	A	09/15/88	J67217	1	108R	ASSEMBLY TEST UNIT	2	PLA	
PL	12335989	D	N	B	10/04/88	J67221	1	1088	INTERFACE MODULE ASSEMBLY	2	021	
PL	12335989	A	N	B	10/04/88	J67221	1	1088	INTERFACE MODULE ASSEMBLY	2	PLA	
PL	12335990	E	N	B	09/15/88	J67218	2	1088	CORE TEST UNIT	2	021	
PL	12335990	A	N	B	09/15/88	J67218	1	1088	CORE TEST UNIT	2	PLA	
PL	12335991	D	N	A	11/06/87	REL-A	2	1088	MEMORY MODULE ASSEMBLY	2	021	
PL	12335991	A	N	A	11/11/87	REL-A	2	1088	MEMORY MODULE ASSEMBLY	2	PLA	
	12335992	E	N	C	02/17/88	J61179	1	1088	CCA SPECIAL FUNCTIONS	2	021	
PL	12335992	A	N	C	02/17/88	J61179	6	1088	CCA,SPECIAL FUNCTION	2	021	
	12335993	E	N	B	06/07/88	J67208	2	1088	ASSEMBLY,MAIN FRAME	2	PLA	
PL	12335993	A	N	B	06/07/88	J67208	2	1088	ASSEMBLY,MAIN FRAME	2	PLA	
	12335994	C	N	K	01/12/88	REL-A	1	1088	CADEX/STATIC-SENSITIVE	2	026	
	12335995	C	N	A	01/12/88	REL-A	1	1088	PLATE,COMMON	2	029	
PL	12335996	A	N	A	11/20/87	REL-A	1	1088	PLATE,CONTENTS-CORE-ASSEMBLY	2	029	
	12335998	C	N	C	01/25/90	J67299	1	1088	CONNECTOR	2	025	
	12335999	C	N	C	01/25/90	J67297	3	1088	KEYBOARD 4X5 MATRIX	2	025	
	12336000	D	N	A	01/11/98	REL-A	1	1088	KEYBOARD ASSEMBLY	2	029	
	12336001	C	N	B	01/25/90	J67298	1	1088	RETAINER FLEXPRINT	2	029	
	12336002	E	N	A	01/11/98	REL-A	3	1088	COVER SET COMMUNICATOR	2	029	
	2397806	D	N	B	11/15/84	J43197	3	1088	PLNG DIAG STE-X DT/OT DESIGN	2	029	
	2397812	D	N	A	07/15/86	REL-A	2	108R	ANALYZER SET VEHICULAR STE-X	2	029	

PREFIX	DRAWING NUMBER	SIZE	DWG S	REV	DATE-ISS	ECN	#SH	RESP	L	TYPE	DESCRIPTION	OUTSTANDING ECNS
	2412683	D	N	A	08/10/81	REL-A	1	1088	2	029	PROGRAM PLANNING DIAGRAM BOARD,THERMAL ANALYSIS	
	2415110	E	N	B	09/28/82	J26936	1	1088	2	034	SCH-LCD DRIVER	
	2415151	E	DN	C	01/13/83	J26999	1	1088	2	029	PLANNING DIAG-SET COMMUNICATOR	
	2415166	E	N	D	10/30/86	J57530	1	1088	2	029	SET COMMUNICATOR 2/36 MDL,PCI PLANNING DIAGRAM	
	2416263	D	N	A	08/17/83	REL-A	3	1088	2	029	PLANNING DIAGRAM STE-X	
	2416264	D	N	B	07/28/83	J37205	3	1088	2	029	PLANNING DIAGRAM STE-X PRODUCTIOI DESIGN	
	2721340	C	N	A	11/01/85	REL-A	1	1088	2	029	FLOPPY DISK 5.25 DIA	
	2721341	C	N	A	11/01/85	REL-A	1	1088	2	021	FLOPPY DISK ASSEMBLY	
	12335910										GASKET, CONNECTOR	
	12335911										GASKET, CONNECTOR	
	12335912										GASKET, CONNECTOR	
	12335913										GASKET, CONNECTOR	
	12335919										TAPPING PLATE	
	12335921										TOP PANEL ASSY.	
	12335969										MCL, PANEL/NEST ASSY. STE-X CORE	
	12335971										PLATE, IDENTIFICATION	
	12335997										PLATE, CONTENTS TEST UNIT ASSY.	
	12336036										LABEL, FIRMWARE	

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APPENDIX E

STE-X DEVELOPMENT SUPPORT TOOLS

STE-X DEVELOPMENT TOOLS

Automated Systems Department (GE)

Tool	Operating System S/W	Development Support S/W	SETCOM S/W	Selftest S/W	M1 Applications S/W	STE-X/ICE S/W	M2 Applications S/W	HIP Applications S/W	MMID
Operating System S/W	✓			✓	✓	✓	✓	✓	✓
Development Support S/W	✓	✓	✓	✓	✓	✓	✓	✓	✓
SETCOM S/W			✓						
Selftest S/W				✓					
M1 Applications S/W					✓				
STE-X/ICE S/W						✓			
M2 Applications S/W							✓		
HIP Applications S/W								✓	
Intel NDS II - Network System II + Series II/III Development Station	✓	✓	✓						
VAX 11/780	✓	✓		✓	✓		✓	✓	✓
Prom Programmer	✓	✓							
VAX 11 Pascal		✓							
VAX 11 Fortran 77		✓							
Pasc86 V2.0	✓			✓					
Asm86 V2.0	✓			✓					
Link86 V2.0	✓			✓					
Lib86 V2.1	✓								
Pasc51	✓			✓					
Asm51	✓			✓					
ISIS-III(IV) V1.0	✓	✓	✓						
Intel Macro Assembler V2.0		✓	✓						
Pasc86 V2.0	✓								
Asm86 V2.0	✓								
Link86 V2.0	✓								
Loc86 V2.0	✓								
OH86 V1.0	✓								
Lib86 V2.1	✓								
Pasc51 V2.0	✓								
Asm51 V2.0	✓	✓							
IPPS V1.4	✓	✓							
RL51 V1.0		✓							

APPENDIX F

FINANCIAL DATA

DAAE07-88-C-R133 S/M E87

PERFORMANCE REPORT (K$)

BASELINE		PERFORMANCE THRU SEPTEMBER 1990	
ALLOCATED S.O.BUDGET	199.3	ACTUALS TO DATE	175.3
		ETC (CONTRACT CLOSEOUT)	4.0
		TOTAL S.O. COST	179.3
RESERVE	0.0	RESERVES	0.0
SHOP ORDER STANDARD	199.3	TOTAL IFC	179.3
RATE RESERVE	7.4		0.0
TOTAL ECL	206.7		179.3
G&A/IR&D/B&P	26.8		34.3
TOTAL COST (B/E)	233.5		213.6
FEE $	22.7		22.7
CONTRACT VALUE	256.2		236.3
MARGIN %	9.72%		10.63%

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SET-X OT SUPPORT   S/M E87

— PLAN   -- ACTUAL

VALUES AT ENG
COST LEVEL

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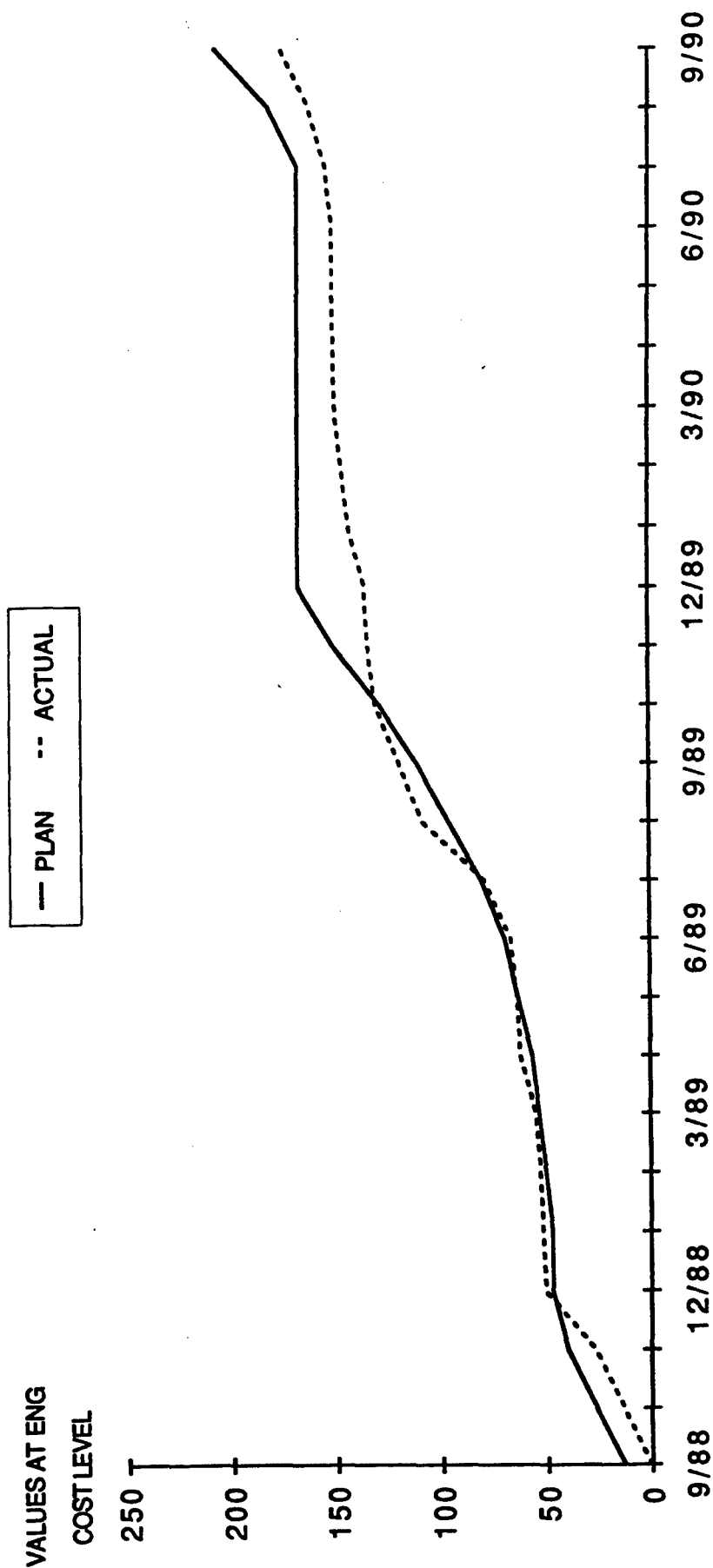
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